

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE COMMISSION)	
INVESTIGATION AND GENERIC PROCEEDING)	
ON AMERITECH INDIANA'S RATES FOR)	CAUSE NO. 40611-S1
INTERCONNECTION, SERVICE, UNBUNDLED)	
ELEMENTS, AND TRANSPORT AND)	PHASE I
TERMINATION UNDER THE)	
TELECOMMUNICATIONS ACT OF 1996 AND)	
RELATED INDIANA STATUTES)	APPROVED:

BY THE COMMISSION:

Camie J. Swanson-Hull, Commissioner

Abby R. Gray, Administrative Law Judge

On January 18, 2001, the Indiana Utility Regulatory Commission issued its Order in this Cause opening an investigation to consider issues that had not been finalized in the 40611 Cause. The Order also found that Indiana Bell Telephone Company, Incorporated d/b/a Ameritech Indiana ("Ameritech Indiana" or "Ameritech") and other interested parties should file comments on what open issues and UNEs should be addressed in this docket. Initial Comments were filed by Ameritech Indiana, Sprint Communications Company, L.P. and United Telephone Company of Indiana, Inc., d/b/a Sprint ("Sprint"), Intelenet Commission ("Intelenet") and Indiana CLECs, consisting of AT&T Communications of Indiana, Inc. ("AT&T"), WorldCom, Inc. ("WorldCom"), McLeodUSA, TCG Indianapolis, Time Warner Telecom of Indiana, L.P. ("Time Warner") and Z-TEL Communications ("Z-Tel"). Reply comments were filed by Ameritech Indiana and the Indiana office of the Utility Consumer Counselor ("OUCC"). On February 1, 2001, the Intelenet Commission filed its Request for Intervention. The Commission granted the Intelenet Commission's Request to Intervene on February 9, 2001.

On August 2, 2001, at 1:30 p.m. in Room TC10, Indiana Government Center South, Indianapolis, Indiana, pursuant to notice duly published as required by law, a prehearing conference and preliminary hearing was held in this Cause. At the prehearing, Ameritech Indiana, the OUCC, WorldCom, McLeodUSA, Intelenet Commission, Time Warner and Z-Tel appeared and participated. Representatives of Sprint and AT&T also appeared and participated in discussions held off the record. The Commission determined that this Cause should be divided into two phases. The Commission issued its Prehearing Conference Order on August 29, 2001, which, among other things, established the issues to be considered in Phase I and Phase II of this subdocket. Phase

I was to address “the rate for unbundled local switching (“ULS”), including the port and usage costs, if any, the shared transport component of ULS and recurring and nonrecurring charges for all UNE combinations, including new installations when facilities are present but dial tone is not present, and migrations.”

On October 15, 2001, Ameritech prefiled the direct testimony of Michael D. Jarmon, Michael D. Silver and Dr. Kent A. Currie; and, AT&T and WorldCom prefiled the Direct Testimony of Steven E. Turner.

On November 8, 2001, Ameritech filed corrected exhibits to the Direct Testimony of Michael D. Silver.

On November 20, 2001, Ameritech prefiled the Responsive Testimony of Dr. Kent A. Currie and the Rebuttal Testimony of Michael D. Jarmon; the Intelenet Commission prefiled the Testimony of Jerry Sullivan; the OUCC prefiled the Testimony of Ralph Sorrell; and, Z-Tel prefiled the Reply Testimony of Dr. George S. Ford.

On November 21, 2001, the Intelenet Commission prefiled the Testimony Nunc Pro Tunc of Jerry Sullivan; and, WorldCom and McLeod prefiled the Rebuttal Testimony of Dr. August H. Ankum.

On December 11, 2001, Ameritech prefiled the reply testimony of Michael D. Jarmon, Michael D. Silver and Dr. Kent A. Currie; AT&T and WorldCom filed the Surrebuttal Testimony of Steven E. Turner. During the Phase I hearing, McLeod adopted and sponsored all testimony of Steven E. Turner.

On December 13, 2001, the OUCC filed its Motion to Strike Testimony of Dr. Kent A. Currie and its Memorandum in Support of Motion to Strike Testimony.

Hearing was held in this Cause on December 18-20, 2001 in Room TC10, Indiana Government Center South, Indianapolis, Indiana, pursuant to notice duly published as required by law. At the hearing, Ameritech Indiana, the OUCC, WorldCom, AT&T, McLeodUSA, Intelenet Commission, and Z-Tel appeared and participated.

Based upon the applicable law and the positions of the parties, the Commission now finds as follows:

1. Jurisdiction. Indiana Code 8-1-2-5 permits the Commission to prescribe reasonable conditions and compensation for physical connections between public utilities engaged in the provision of telecommunications services in Indiana. Congress also passed legislation on the subject of telephone interconnection, included in the Telecommunications Act of 1996 (“TA96” or “the Act”). Section

252(d) of that Act specifically authorizes each state utility commission to determine the just and reasonable rates for interconnection services, network elements, and transport and termination of traffic in accordance with the standards set forth in the Act. Furthermore, Ameritech Indiana is a public utility as defined by the Indiana Code. Therefore, this Commission has jurisdiction over Ameritech Indiana and the subject matter of this Cause.

2. Introductory Comments. Indiana is at a critical crossroads as competition in the state telecommunications market struggles to emerge. Six years after passage of the Telecommunications Act of 1996, the advent of local competition – particularly in the residential market – still has not arrived. We are administratively aware that SBC/Ameritech dominates the local exchange marketplace, including almost the entire residential market and over 90% of the business marketplace.¹ The Commission is also administratively aware of the problems in the most recent few years facing CLECs, with announced plans for bankruptcy, restructuring, or fire sales of their assets as their market valuations drop. We also are aware of the progress recently being made in neighboring states to jump-start local competition.

It has become evident that more must be done to open Indiana's market to competition. This point became abundantly clear in 2000, as Ameritech consumers encountered substantial problems with the quality and reliability of local service, but had few, if any, alternatives in the market.

3. Nonrecurring Costs for UNE-P.

A. Ameritech Indiana. Ameritech presented three witnesses in this proceeding. Of the three witnesses, Ameritech Witness Michael D. Silver addressed in the most detail issues relating to NRCs for UNE-P.

In his direct testimony, Mr. Silver discussed the recurring and non-recurring charges that Ameritech is proposing in response to the Commission's requirement that Ameritech file tariffed rates associated with those UNE combinations ordered in the AT&T/Ameritech arbitration, as well as "migrations." Mr. Silver proposed the following NRCs for most UNE combinations, broken down into customer migrations and new combinations: (1) Combinations 1 and 2: \$28.71 and \$102.05 for migrations and new combinations, respectively; and (2) Combinations 3, 4, 5B: \$14.57 and \$43.90, for migrations and new combinations, respectively. (*See*, Silver Reply, Rev. Att. 2 and 3; and Silver Direct, Att. 4, 5, 6)

¹ *See 2001 Telephone Report to the Regulatory Flexibility Committee of the Indiana General Assembly ("Reg. Flex Report")*. As the Reg. Flex. Report shows, CLECs statewide only serve 2.2% of total residential access lines and X% of total business access lines. We also noted in the recent AT&T/Ameritech Interconnection Arbitration Proceeding: "there is virtually no local exchange competition in the State of Indiana". Cause No. 40571-INT-03, at p. 44 (November 20, 2000)

In his Reply testimony filed December 11, 2001, Mr. Silver replied to the responsive testimony filed by AT&T/WorldCom/McLeod Witness Steven Turner, ZTel Witness Dr. George Ford, and Intelenet Witness Jerry Sullivan. Specifically, Mr. Silver addressed issues raised concerning the validity of NRCs for Ameritech Indiana's UNE-P combinations. Mr. Silver pointed to an August 16, 2000 order in Cause No. 40611 as support for Ameritech's position that the Commission is foreclosed from examining cost studies for NRCs. Mr. Silver quoted a selected part of the order, where the Commission ruled that Ameritech is required to file a tariff for "basic UNE elements," and "that there is no reason to further delay the implementation of the January 26, 2000 Order and that permanent prices be established for the original list of UNEs." (Silver Reply at 2) Mr. Silver interpreted this language to mean that only recurring costs are at issue here, and asserted that "it is apparent Ameritech has already received approval for the NRCs associated with the UNEs which make up the UNE combinations required to be filed in Ameritech's tariff." (Silver Reply at 3) Mr. Silver also attacked the cost model presented in the testimony of Mr. Turner, stating that the model does not include actual costs. Instead, Mr. Silver recommended that the Commission establish NRCs for UNE combinations by adding the "sum of the approved NRCs associated with each of the UNEs being combined." (Silver Reply at 4)

Under cross-examination, Mr. Silver testified that the Commission orders establishing the nature of Phase I of this proceeding were the August 16, 2000 Order in Cause No. 40611, and the January 18, 2001 and July 3, 2001 orders in this proceeding. (Tr. AA-18, 27) Although aware of the Commission's August 29, 2001 order in this case, Mr. Silver did not rely upon its discussion of the issues in this case and the filing requirements in preparing his testimony. (Tr. AA-18)

Mr. Silver testified that he was a witness addressing UNE pricing in the recent AT&T/Ameritech interconnection arbitration, Cause No. 40571-INT-03. (Tr. AA-27-28) Mr. Silver stated that UNE combinations rates were not set in the arbitration proceeding. (*Id.*) Mr. Silver reviewed page 44 of the Commission's November 20, 2000 order in that case, where the Commission ruled:

Regarding the application of NRCs, we agree with Ameritech Indiana that certain NRCs are appropriate for migrating customers. Ameritech Indiana states, and AT&T does not rebut that certain chargeable activities do occur (e.g., billing and translations). Therefore the real issue is, are the NRCs proposed by Ameritech Indiana appropriate for the work being performed. We recommend that this issue be deferred to our cost docket in Cause No. 40611-S1. Because no cost studies or other information were provided in this proceeding [Cause No. 40571-INT-03], there is no evidence [i.e., no cost studies] in this record [Cause No. 40571-INT-03] to make any decision on what the appropriate NRCs should be. Until then, the rates will be as proposed by Ameritech Indiana pending completion of our decision in the cost docket, subject to a true-up to be effective on the date of this new agreement.

Upon reviewing this finding, Mr. Silver disagreed that the issue of the underlying costs for

providing UNE combinations was deferred to this case, and instead postulated that only the charges were at issue here. (Tr. AA-30) Thus, the NRCs proposed by Ameritech are based on this interpretation, and Ameritech's position that UNE combination rates are established by the sum of the parts. (Tr. AA-85) Mr. Silver also testified that Ameritech has no tariff in place in Indiana today with NRCs for UNE Combinations. (Tr. AA-25)

Mr. Silver also offered testimony on Ameritech's proposed UNE combination rates here versus those ordered in Illinois, Michigan and Ohio. (Tr. AA-33-38) Mr. Silver testified that the migration NRC for UNE combinations in Michigan is \$0.35 for migrations, but could not recall the NRC for new combinations. (Tr. AA-33-34) Mr. Silver also testified that the NRC for new migrations in Ohio is \$0.74. (*Id.* at 34) While testifying that the Illinois NRC for migrations is \$1.02, Mr. Silver did not know the Illinois NRC for new combinations. (*Id.*) Using these numbers from Indiana's neighboring states, Mr. Silver testified that Ameritech's proposed NRCs for UNE Combinations 1 and 2, if adopted by the Commission, would result in a UNE combination migration rate here that is 82 times the Michigan rate and 28 times the Illinois rate.²

In his reply testimony, Mr. Silver was critical of certain of the CLECs' comparisons between Ameritech Indiana's proposed charges and charges in other Ameritech states, arguing that these comparisons were either inaccurate or incomplete:

New Installations

Illinois

In response to a question whether a comparison of the UNE-P NRC for new installations that Ameritech proposed in Illinois (\$11.79) with what Ameritech proposed in Indiana was appropriate, Mr. Silver answered, "No. The question to be asked is, are the rates being charged by Ameritech Indiana based on IURC approved TELRIC cost studies. The answer is clearly yes." (Silver Reply at 5) Beyond this philosophical objection, Mr. Silver argued that, for new UNE-P combinations, the charge Ameritech offered in Illinois (\$11.79) only included loop and switch port ordering charges and did not include the loop connection charge or the port charge. He stated "nothing in the [ICC's] Order denies Ameritech the ability to charge for the loop and port charges when providing new UNE combinations." (Silver Direct at 6)

Migrations

Illinois

² The Indiana rate is 38 times the Ohio rate, if the potential OSS rate element, which has yet to be established, is excluded. (Tr. AA-36-37)

Mr. Silver acknowledged that “the Illinois Commerce Commission has ordered that the NRC ordering charges for a UNE-P migration be a records charge only,” – i.e., without any loop or port charges. (Silver Direct at 6)

Michigan

Mr. Silver stated that “[T]he \$0.35 migration NRC cited by Mr. Turner only applies to UNE-P combinations containing a line port. For migrations of UNE-P migrations containing trunk ports, Ameritech’s NRC is \$36.38.” (Silver Reply at 6, 7) He also stated that, “in cases where a CLEC orders an existing UNE-P combination that does not have dialtone, Ameritech Michigan receives both a port installation NRC and a port service order NRC instead of the \$0.35 referenced by Mr. Turner.” (Silver Reply at 7, footnote 7)

Ohio

According to Mr. Silver, the \$0.74 UNE-P migration charge in Ohio also does not include a trunk port charge. (Silver Reply at 7) In addition, in Ohio, “CLECs will also be charged an OSS charge and where features have to be activated or changed in the switch, there is a feature charge NRC.”

In Responsive testimony, Ameritech Indiana witness Dr. Kent Currie attempted to rebut portions of the testimony filed by AT&T/WorldCom/McLeod witness Steven Turner regarding the AT&T/WorldCom/McLeod Nonrecurring Cost Model (“NRCM”). Using Ameritech’s cost study filed in Cause No. 40785-S1 (the Opportunity Indiana 2000 proceeding),³ Dr. Currie maintained that the NRCM relies on an overly restrictive and unreasonable concept of nonrecurring costs. In addition, he maintained that inputs used by the NRCM were generally incorrect and unreasonable. Dr. Currie stated that a significant problem with the inputs used in AT&T/WorldCom/McLeod’s study was that AT&T/WorldCom/McLeod substituted a “futuristic infrastructure” in place of the actual network that will be unbundled. Dr. Currie believed the problem manifested itself in various assumptions including AT&T/WorldCom/McLeod’s assumptions for Integrated Digital Loop Carrier (“IDLC”), dedicated inside plant (“DIP”), dedicated outside plant (“DOP”), and operations support systems (“OSS”) fallout. Specifically, according to Dr. Currie, the 1996 Act requires that nonrecurring costs be based on the ILEC network that will be unbundled. Dr. Currie maintained that the NRCM could not be rendered useful in this proceeding, even if “reasonable” inputs are used. Other specific criticisms are: (1) the NRCM “assumes a utopian OSS which is based on the most up-to-date OSS and processes, even though these are not currently used by Ameritech.” (Currie Responsive at 4); (2) the order 98% flowthrough assumption in the NRCM is too high because it should not apply “to all the back office legacy provisioning systems down stream from the ordering process” (*Id.*); and (3) the NRCM’s time estimates “represent unrealistically low expectations of the time needed for activities to provide UNEs in

³ The cost study was not made a part of the record in that proceeding.

Indiana”. (*Id.* at 5) Dr. Currie also testified that the NRCs for UNE-P presented here as proposed by Mr. Turner are much lower than those derived from AT&T’s TOC studies that set NRCs for DS-1 and DS-3 special access services. According to Dr. Currie these studies, which are for AT&T private line services in 1989 and 1997 for the states of Maryland and Alabama, respectively, are relevant impeachment of the NRCM, which was prepared for use with Ameritech in Indiana in 2001.

In his Reply testimony, Dr. Currie stated that Ameritech Ohio’s testimony shows that its Indiana flowthrough for UNE-P orders will be in the range of 70-85%. Hence, Dr. Currie recommended that the Commission disregard the 98% flowthrough estimate posited by Mr. Turner. (Currie Reply at 68) Dr. Currie also stated that the Texas PUC established a UNE-P migration rate of \$2.58, and noted this was not based upon any cost study presented by Southwestern Bell Telephone Company (“SWBT”). (*Id.* at 69)

Dr. Currie testified under cross examination that he had no opinion whether the prices for UNE combinations should be determined by subtracting from the sum of the combined UNEs the costs that are avoided by virtue of their purchase as a package. (Tr. AA-132-133) Dr. Currie had no recommendation on how the Commission should price UNE combinations.

Dr. Currie testified that Ameritech’s cost studies used in Cause No. 40611 were done in 1996, with compliance studies prepared in 1998. (Tr. AA-136) Dr. Currie testified that Ameritech’s wholesale service cost studies submitted in Cause No. 40785-S1 were not used by the Commission to establish UNE rates, including NRCs for UNE combinations, since wholesale services were outside of the stipulation approved in the proceeding. (*Id.* at 137-138)

Dr. Currie also testified that Ameritech is adopting a new, highly efficient OSS in March 2002. (Tr. AA-139) Finally, Dr. Currie testified that the Texas NRC UNE combination migration rate of \$2.58 referenced in his testimony was stipulated to by Ameritech’s affiliate, SWBT. (Tr. AA-147)

In his direct testimony, Ameritech Indiana Witness Mr. Jarmon addressed the network components necessary to assemble the UNE combinations outlined in AT&T’s Interconnection Agreement (“ICA”) with Ameritech Indiana, Article IX, Table 1. According to Mr. Jarmon, the Commission had directed Ameritech to file a tariff regarding the UNE combinations in that Table. Mr. Jarmon presented testimony to provide information on the various elements needed to create such UNE combinations.

In Responsive testimony, Mr. Jarmon sought to rebut Mr. Turner’s testimony dealing with the NRCM by addressing Dedicated Inside Plant (“DIP”) and Dedicated Outside Plant (“DOP”) engineering and construction procedures used in Ameritech Indiana. Additionally, Mr. Jarmon addressed the differences between the DOP and Connect Through (“CT”) policies of Ameritech Indiana.

B. AT&T/WorldCom/McLeod. AT&T/WorldCom/McLeod sponsored Mr. Steven E. Turner to propose NRCs for UNE-P. Mr. Turner sponsored three pieces of testimony, each of which is summarized in turn.

i. NRC Issues/Costs Associated with Initiating, Discontinuing and General Provisioning Related Issues

According to Mr. Turner, the NRCM applies forward-looking, long-run economic cost principles by assuming a network engineered using forward-looking technologies and efficient processes. AT&T/WorldCom/McLeod argue that any examination of ILEC processes, and how they are accounted for in the NRCM, therefore should primarily rely upon Mr. Turner's testimony, with some additional information from Z-Tel Witness Dr. George Ford, since Ameritech provided no contrary evidence.

Mr. Turner testified that nonrecurring costs are onetime costs for activities required to initiate or provide wholesale services, interconnection, or unbundled network elements. More specifically, nonrecurring costs are onetime costs associated with establishing, disconnecting, or rearranging a communications service at the request of a customer.

The types of ILEC activities that should be modeled are those associated with the preordering, ordering, and/or provisioning processes. *Pre-ordering* is the process by which a CLEC interfaces with the end-user and, for existing customers, accesses existing service databases, determines the customer's needs, and gathers information necessary to be able to create an accurate local service order. This includes information about the services, if any, currently subscribed to by the end user, the customer's service address, the facilities available to provide service to the end user, telephone number assignments, and related information. (Turner Direct at 5) A CLEC depends on the ILEC a great deal in the preordering stage. For example, prior to placing a service order with the ILEC for an existing ILEC customer migrating to the CLEC, the CLEC must verify this information against the ILEC's records for that same customer.

Ordering is the process of placing an order requesting the various services or unbundled network elements needed to satisfy the needs of the end user. Most ordering is done by the CLEC electronically submitting a Local Service Request ("LSR") to the ILEC via an electronic gateway. The ILEC generally responds electronically with a positive confirmation of order acceptance. (Turner Direct at 6)

Provisioning is the process by which an ILEC, after receipt of an order, performs the necessary functions, such as assigning and connecting all of the network elements, required to provide service to the CLEC customer. All services or UNEs are not provisioned the same way. There are two types of provisioning processes: (1) Non-Designed, which is used for services such as POTS and Integrated Services Digital Network Basic Rate Interface ("ISDN BRI"); and (2) Designed, which is

used for services such as DS1 special circuits.

In simple terms, a “Non-Designed” service is one where no special planning or engineering work is required to provide the service. The typical circumstance is the provision of basic local exchange service to a residential customer. No special engineering is required to provide this service or the elements underlying it. A “Designed” service, on the other hand, is an engineered service. A designed service uses inventory not typically needed for POTS type service and therefore requires special engineering to implement the service.

According to Mr. Turner, often ILECs, including Ameritech, assume that the purchase of the unbundled network element or the purchase of the existing combination of elements utilized to provide basic local services must be treated as "designed" or special circuits. The "design" process calls into play the use of equipment and labor that a non-designed circuit does not, resulting in higher costs. Mr. Turner argues that CLEC services should not have to go through an expensive design process that the ILEC does not perform for its own retail services. For example, according to the CLECs, an unbundled 2-wire analog loop can and should be provisioned in a non-designed process.

According to Mr. Turner, the ILECs have consistently developed mechanized, efficient systems and processes to manage large volumes of orders for the services that they themselves provide. Wholesale orders can also be processed electronically, as are orders for retail basic services. (Turner Direct at 6-8)

According to Mr. Turner, because the study should reflect forward-looking, efficient costs, a major assumption is to understand and utilize forward-looking network element technologies of the network architecture supporting recurring rate development. Forward-looking technologies are the most efficient, least cost technologies that are generally available in the marketplace today. Nonrecurring costs should be based on a network architecture that takes advantage of intelligent, processor-controlled network elements that can communicate over standard interfaces to the OSS systems in such a manner that little or no manual intervention is required for provisioning or maintenance activities. These technologies work hand in hand with the OSS to minimize cost and improve customer service.

In addition, Mr. Turner argued that a proper forward-looking study must be based on the assumption that any work functions that do occur must be consistent with efficient processes. For example, technicians are capable of handling multiple tasks so there should be no assumption that each order requires a separate trip by the technician. Some central offices are staffed 24 hours a day, while others are not. When work is required in these non-staffed offices, the employees should be dispatched with several jobs at one time. Cost estimates should not be based on the assumption that employees perform work on a single order at a time. Mr. Turner suggested that factors such as “quantity of orders per dispatched trip” and “ratio of lines served by non-staffed central offices” affect the costs to be assigned to any one order.

Mr. Turner argued that efficient companies dispatch technicians and equip them with mechanized field access systems that allow them to communicate with the OSS. They can complete orders, get new work assignments, close trouble tickets, update databases, get remote access to test systems, and complete their work in a mechanized fashion. Here again, Mr. Turner argued that the cost studies should reflect efficient, technology-based practices. If forward-looking technologies are not coupled with efficient processes, then consumers will not see the benefits of the technologies. (Turner Direct at 8-10)

ii. A Nonrecurring Cost Model Should Apply The Use Of The ILEC's Efficient, Fully Integrated Operations Support Systems Which Are Accessible To CLECs And Permit Them To Transact Business With The ILEC Via An Electronic Interface.

According to Mr. Turner, OSS are the electronic, software driven computer programs and databases that telecommunications companies use to manage the functions of preordering, ordering, provisioning, repair, maintenance, and billing processes for both their retail and wholesale operations. OSS assumptions are important to the development of a nonrecurring cost model. OSS have a very significant impact on nonrecurring costs because the major drivers of nonrecurring costs are labor times and labor rates. The less manual intervention, the less costly it is to establish service and the more rapidly the incumbent can fill a service order.

As these automated systems were developed and refined over the past two decades, the critical element for such systems became flowthrough, meaning that the processing of a problem or request for service would flowthrough several computer systems and be resolved without human intervention. The reduced reliance on human intervention due to advances in OSS has significantly reduced the incremental nonrecurring costs associated with functions such as preordering, ordering, provisioning, maintenance, and billing. Accordingly, Mr. Turner argued, the NRCs that are charged to CLECs should reflect these cost savings.

Mr. Turner argued that most of an ILEC's systems are electronically linked and are dependent on one another. Fallout refers to errors in the electronic flowthrough process. For example, in an electronic ordering process, if one of the OSS receives erroneous or incompatible information from another OSS, the order will be designated as a process "fallout" and may require manual intervention to correct or complete the order. Other causes of fallout include communication link failures between different OSS, software release incompatibility, polluted databases, hardware failures, or system maintenance problems. Fallout is important because in many instances it is the only cost driver for an otherwise seamless electronic flowthrough process. (Turner Direct at 15)

Mr. Turner further stated, "Greatly reducing fallout will lower operating costs for the incumbent local exchange carrier. Moreover, if the incumbent fully cleans up its databases, it will also be able to reduce the number of service orders for its own end user services that fallout because of the

unavailability of facilities. This will occur because cleaning up the databases will give the incumbent more accurate information about its facilities and the rates of growth of use of those facilities in geographic specificity. This also will lower the incumbent's costs because it will enable a higher fill level on facilities." (Turner Direct at 17)

iii. Nonrecurring Charges For ILEC Bundled Services And Unbundled Network Elements Should Be Based Upon The Forward-Looking Economic Cost Of Fulfilling These Transactions Assuming The Most Efficient Use Of The Integrated Operations Support Systems That Are Available Today.

According to Mr. Turner, the current generation of ILEC OSS is designed to provide a high level of automated and flowthrough functionality. All of the best available OSS that exist today, when operated in an efficient manner, provide for flowthrough functionality and can have minimal fallout – though ILECs that have allowed their databases to become polluted with erroneous data may well be experiencing high levels of fallout that harm service to both retail and wholesale customers.⁴ Mr. Turner states that it should not be necessary to build or buy anything new to achieve flowthrough functionality – though again, ILECs with polluted databases may have to perform remedial maintenance. (Turner Direct at 20)

According to Mr. Turner, Ameritech Indiana's flowthrough rate for the same period for UNE-P orders exceeds [confidential %].⁵ Thus, Mr. Turner argued that, according to Ameritech Indiana's own self-reported data, its fall-out rate for UNE-P orders is less than [confidential %].

iv. The AT&T/WorldCom/McLeod Nonrecurring Cost Model Applies Forward-Looking Long-Run Economic Principles By Assuming A Network Engineered Using Forward-Looking Technologies And Efficient Processes.

Consistent with the above principles, the major assumptions employed in the AT&T/MCI NRCM are: (1) a network engineered using forward-looking technologies and efficient processes; (2) an electronic ordering interface between the CLEC and ILEC that incorporates front-end edits to minimize service order errors and the ability for those errors to be returned electronically; (3) an efficient OSS environment with unpolluted databases to minimize fallout; (4) electronic provisioning where possible; (5) POTS services are non-designed services; and (6) OSS investment and maintenance costs are recovered in existing recurring rates.

The NRCM develops cost estimates for the different nonrecurring functions by identifying and estimating the associated costs of each activity that will be performed by an ILEC when a CLEC requests a wholesale service, interconnection, and/or an unbundled network element. By identifying and

⁴ Ameritech Indiana's OSS are currently under investigation in Cause No. 41657.

⁵ See, Ameritech Indiana Confidential Cross Exhibit No. 4.

estimating costs associated with each activity, the NRCM develops a “bottoms-up” estimate of nonrecurring costs. (Turner Direct at 22)

According to Mr. Turner, the methodology is as follows. First, all of the activities required to complete a Local Service Request are identified and listed. Second, for each activity, based on the consensus of the NRCM panel of experts, an estimate is provided of the amount of time (in minutes) required to perform each activity. Third, once the activity time has been determined, the work group associated with that type of labor is incorporated to determine what the labor cost would be. Fourth, since some activities may not have to be performed in all instances (for example, some activities that are required when using an unbundled copper loop are not required when using an unbundled fiber loop), the Model also incorporates the probability of an activity happening. A panel of experts collectively discussed and reached consensus on the activities, probabilities, and work time estimates included in the Model. A labor rate expert, working with all the technical experts to determine the appropriate class of labor associated with each activity, helped develop the labor rates. Fifth, the NRCM calculates the cost of each of the activities comprising a NRC Element Type using the following formula:

$$\text{Activity Cost} = \text{Activity Probability} * \text{Time (Minutes)} * \text{Rate (\$/Hour)} / 60$$

Sixth, the model sums the costs of the activities for each element type and then applies a variable overhead factor to convert the calculated cost to a price proposal. This input represents the loading factor for variable overhead expenses not already captured in the model. The labor rates used by the NRCM are unique to Indiana. (Turner Direct at 23-24)

Mr. Turner testified that each of these judgments in the NRCM represents the consensus of a number of experts. An explanation of each is provided in the Non-Recurring Cost Model Technical Assumptions Binder (“NTAB”) documentation attached to Mr. Turner’s testimony as Appendix SET-2. (Turner Direct at 24)

The Model currently calculates preordering, ordering, provisioning, and disconnecting nonrecurring costs for 49 Network Element types.⁶ Some examples are POTS/ISDN BRI, 4-Wire UNE Loop, and DS1 and DS3 Interoffice Transport. Section 28 of the NTAB provides a complete list and detailed description of each element type.⁷

“Migration” occurs when the CLEC requests the existing services and facilities for a customer of the ILEC to be moved to the CLEC. “Installation” occurs when the incumbent establishes any new or additional service for a CLEC customer. “Disconnect” occurs when the CLEC requests that the ILEC

⁶ The Commission notes, however, that the proponents of the NRCM only included 10 of those Network Element types in the material filed in this proceeding.

⁷ Because Phase I of this proceeding addresses NRCs for UNE combinations, and not additional NRC rate elements, Mr. Turner ran the NRCM for 10 network element types rather than all 49. These costing results all relate to UNE-P migrations and new installations, and whether 2-wires or 4-wires are used. (Turner Direct at 24-25)

no longer provides a service or unbundled network element. (Turner Direct at 25)

The NRCM assumes the efficient operation of the ILEC OSS (Legacy systems) architecture that currently exists within the industry and that the proponents believe to be typical (Section 15 of the NTAB further defines the criteria and environment for these OSS). In addition to activities that are required for preordering, ordering, and provisioning, the Model includes certain activities that the CLECs believe would be necessary if there were fallout. The time and costs associated with these manual activities are included in the cost of completing the related local service request. (Turner Direct at 25)

The NRCM assumes a fallout rate of 2 percent. According to Mr. Turner, Ameritech Indiana currently reports fallout rates of less than **[confidential %]**⁸ for its OSS under certain circumstances, and SWBT's fallout rate is less than 2% under certain circumstances. According to Mr. Turner, it was the consensus of the experts who developed the NRCM that Ameritech's existing OSS, when operated and maintained efficiently as SWBT currently is operating and maintaining its EASE system, should experience fallout rates of that magnitude. The NRCM experts recognized, however, that while a 1% fallout rate is a reasonable objective – and even though, in their collective opinion, it is more consistent with actual data submitted here by Ameritech Indiana -- it might not be fully achieved in all instances and therefore agreed to use a fallout rate of 2%. (Turner Direct at 26)

The CLECs argued that the forward-looking fallout rate is based on the use of OSS that they believe are currently available to all ILECs. The CLECs believe that, if the OSS and associated databases are operated and maintained efficiently, then the ILEC's existing systems would have fallout rates of about 2%. Based upon those two assumptions, the CLECs believe that a forward-looking fallout rate of 2% is much closer to the fallout rate that would prevail in an efficient, competitive market. (Turner Direct at 26)

According to Mr. Turner, the NRCM further assumes the use of forward-looking, currently available technologies. Specifically, for provisioning and maintenance, the NRCM assumes the use of Local Digital Switches, GR-303 IDLC for loops served by a fiber feeder, DCS, SONET rings for transport, and a low profile, punch down block main distributing frame ("MDF") for terminating copper loops in the central office. The CLECs believe that the assumption that Ameritech is using these technologies is important because they use intelligent processor controlled network elements that can communicate over standard interfaces to the OSS in such a manner that, according to the CLECs, little or no human intervention is required for provisioning and maintenance activities.

The Model also assumes Ameritech will proactively maintain its network by performing basic network maintenance to ensure that it only provides high quality products and services to the CLEC. In addition, some NRC scenarios incorporate costs for pre-service testing such as a 1000 Hz. test for a 4-

⁸ See, Ameritech Indiana Confidential Cross Exhibit No. 4.

wire circuit to ensure that the service is performing optimally before it is released to the CLEC. The time required to conduct a 1000 Hz. test is assumed to be one minute. (Turner Direct at 26-27)

v. Nonrecurring Costs For Customer Migration.

The activities to migrate a customer using the UNE Platform are accomplished electronically through the electronic gateway and Ameritech's OSS. Thus, in the CLECs' opinion, the cost for a migration order is potentially processing time only.

If an order does fall out in the ILEC's provisioning process, the NRCM estimates the costs associated with the manual time required to resolve fallout problems. The NRCM estimates that the time to analyze and resolve the problem by a technician is 17.5 minutes, which is an average work time for the activities being performed. (Turner Direct at 28)

For a platform migration, all necessary facilities, including Inside Plant at the Central Office, are assumed to be in place, or dedicated and therefore cross-connect activity is not modeled. In addition, the provisioning process would not need to negotiate for release of the customer's facilities before the migration, as would be the case for migration of only the customer's loop. (Turner Direct at 28-29)

vi. Nonrecurring Costs For Installation.

The CLECs argued that the nonrecurring costs for installing a two-wire loop for basic service ("POTS") or for an Integrated Services Digital Network/Basic Rate Interface ("ISDN/BRI") loop are the same because virtually the same Ameritech activities are required. Using existing systems, the CLECs argued that the only difference between provisioning these loops from an OSS standpoint is that the order for a basic two-wire loop would flow to the Telcordia Memory Administration Recent Change ("MARCH") system, and the order for an ISDN BRI loop would flow to the Architel ASAP system. The CLECs argued that both MARCH and ASAP are designed to update the switch automatically. (Turner Direct at 29)

vii. Nonrecurring Costs For Disconnection.

Disconnect occurs when a service to a customer is ended. While ILECs, including Ameritech in its model, typically model installation NRC charges to include the cost of disconnection, the NRCM separates installation and disconnection for costing and pricing purposes. Moreover, the disaggregation of installation and disconnect costs and prices also allows the new entrant the ability to benefit from certain practices with respect to Dedicated Inside Plant ("DIP") and Dedicated Outside Plant ("DOP").

The DIP and DOP processes allow for rapid activation or deactivation of services at an end user location without the need for physical disruption of the facility because, with DIP and DOP, physical connections remain in place and only a command from the OSS to the network element is

necessary to activate or deactivate the service. Mr. Turner states that, if a new entrant chooses to have service deactivated using only software commands, disconnection NRCs become almost nonexistent. CLECs state that Ameritech's current disconnect policy adheres to this practice of DIP and DOP in order to provide immediate service activation to the next customer at that premise. Thus, by modeling the installation separately from disconnection, the new entrant would have the same benefits from the DIP and DOP processes as does the ILEC. (Turner Direct at 29-30)

Turner Reply Testimony. Mr. Turner's reply testimony addressed Ameritech's NRC proposal. According to Mr. Turner, Ameritech witness Mr. Silver confirms that Ameritech intends to charge the total of the individual nonrecurring charges for the elements involved. As a result, for example, Ameritech proposed a nonrecurring charge of \$102.05 for a new combination of a loop and switch port and a nonrecurring charge of \$72.72⁹ for a migration of a loop and switch port. (Turner Reply at 2)

Mr. Turner asserted that Ameritech has not conducted any studies of the costs associated with ordering an unbundled switch port in combination with an unbundled loop – the UNE Platform. Instead, according to Mr. Turner, Ameritech relied upon nonrecurring charges found in tariffs filed with the Commission by Ameritech on October 19, 2001 and has simply documented how it is computing the nonrecurring charges from those tariffs.¹⁰

Mr. Turner testified that Ameritech's proposed NRC for new installations (\$102.05) is based on the summation of four separate nonrecurring charges: (1) Loop Service Order Establishment (\$14.57); (2) Line Connection Charge per Termination (\$29.33); (3) Analog Line Port (\$44.01); and (4) Analog Line Port Service Order (\$14.14).¹¹ Mr. Silver indicates that the \$72.72 nonrecurring charge for migrations was based on the summation of three separate nonrecurring charges¹²: (1) Loop Service Order Establishment (\$14.57); (2) Analog Line Port (\$44.01); and (3) Analog Line Port Service Order (\$14.14).¹³ These nonrecurring charges come from an earlier cost docket that established the individual nonrecurring charges for the unbundled elements (assumed to be provided one-at-a-time, in isolation) – not a combination such as the UNE-Platform as is the topic of the present proceeding.

Mr. Turner testified that, from the CLECs' perspective, the primary problem with Ameritech's "sum of the parts" approach to setting rates is that Mr. Silver has not evaluated the cost implications of ordering unbundled loops and switch ports in combinations that are already working and will be simply

⁹ Ameritech later changed its proposed NRC for UNE-P migrations to \$28.71 to reflect a change in position, to no longer charge an analog line port charge for migrations. (See, Reply Testimony of Ameritech Witness Silver, Rev. Att. 2 and 3).

¹⁰ Silver Direct at 12.

¹¹ Silver Direct, Corrected Attachment 2, Lines 6-9.

¹² Ameritech later changed its proposed NRC for UNE-P migrations to \$28.71 to reflect a change in position, to no longer charge an analog line port charge for migrations. (See, Reply Testimony of Ameritech Witness Silver, Rev. Att. 2 and 3)

¹³ Silver Direct, Corrected Attachment 2, Lines 6 and 8-9.

migrated to the CLEC placing the UNE-Platform order. Moreover, Mr. Silver has made no assessment of the cost impact of Ameritech having these elements already sitting in a combined form, but not yet in service – specifically, the loop is already cross connected to the switch port, but not currently activated for service in the switch. (Turner Reply at 3-4)

Mr. Turner further pointed out that Ameritech has indicated that it intends to process all UNE-P orders through the same service center. An Ameritech Ohio witness stated that Ameritech intends to process all UNE-Platform orders out of a centralized work center for the Ameritech territory.¹⁴ Mr. Turner stated that the important implication of this testimony is that the costs for handling UNE-Platform orders should not vary significantly between the Ameritech states. (Turner Reply at 4-5)

In light of Ameritech's common order processing approach, Mr. Turner therefore focused on Ameritech's NRCs for UNE-P in other states to determine whether Ameritech Indiana's proposal was reasonable. Mr. Turner testified that in Illinois, Ameritech offered a nonrecurring charge of \$11.79. Mr. Turner noted that this was Ameritech's "going-in" position for Illinois – not the \$102.05 and \$72.72 nonrecurring charges that Ameritech has proposed here [for new installations and migrations, respectively.] (Turner Reply at 5-6) AT&T requested a nonrecurring charge in Illinois of \$0.29 (*Id.*) Ultimately, the Illinois Commission ordered a nonrecurring charge of \$1.02 – a charge much closer to that proposed by the AT&T/WorldCom/McLeod Nonrecurring Cost Model than to Ameritech Illinois' proposal of \$11.79. Mr. Turner stated that it is quite disingenuous for Ameritech to offer that the cost to combine an unbundled loop and switch port in Illinois is \$11.79 and offer in Indiana that the cost should be in excess of \$100 for new orders and \$70 for migration orders. (Turner Reply at 5-6) In Michigan, the Commission-approved nonrecurring charge for UNE-P migration orders is \$0.35. (Turner Reply at 9) And finally, in Ohio, the Commission recently ordered a nonrecurring charge for UNE-P migration orders of \$0.74. (*Id.*) The AT&T/WorldCom/McLeod Indiana NRCM produces a nonrecurring charge of \$0.25.

Mr. Turner also testified that in Texas, Southwestern Bell Telephone Company entered into a stipulation with AT&T and WorldCom regarding to the nonrecurring charges for UNE-P migration orders. In that stipulation, Southwestern Bell Telephone Company agreed to charge only an electronic service order charge of \$2.58 for UNE-Platform migration orders. This charge was based on cost studies that were evaluated in 1997 and, as such, the charges that other Ameritech states are developing are more current and appropriate. (Turner Reply at 10) However, this charge does establish an upper threshold on what the UNE-Platform migration nonrecurring charge should be. (*Id.*)

Therefore, Mr. Turner concluded that the AT&T/WorldCom/McLeod proposal is much more consistent with what is being ordered across the Ameritech region than the proposal that Mr. Silver has offered this Commission, and indeed, is also closer to what Ameritech's affiliate voluntarily offered in

¹⁴ Before the Public Utilities Commission of Ohio, *In the Matter of the Review of Ameritech Ohio's Economic Costs for Interconnection, Unbundled Network Elements, and Reciprocal Compensation for Transport and Termination of Local Telecommunications Traffic*, Case No. 96-922-TP-UNE, Tr., Volume 7, at 96.

Texas. (Turner Reply at 9-10) Mr. Turner therefore recommended that Ameritech's proposal of \$102.05 for new orders and \$72.72 for migration orders for the UNE-Platform nonrecurring charge should be rejected. (Turner Reply at 5-6)

Mr. Turner's reply testimony also revisited the issue of UNE-P order flowthrough. Mr. Turner stated that when an order flows through between the CLEC and Ameritech, it does not require manual intervention, and therefore, in his opinion, it does not require the costly intervention of technicians completing the service order. (Turner Reply at 6) Moreover, the importance of flowthrough is borne out by the intense effort that has been expended by Ameritech and CLECs in establishing the electronic interfaces that will be used for order flow to Ameritech in various OSS and Section 271 proceedings throughout the five Ameritech states, including Cause No. 41657 in Indiana.

Mr. Turner concluded that Ameritech's failure to conduct UNE-P cost studies consistent with the flowthrough projections that arise from this type of OSS environment could cause problems. It does not appear that Mr. Silver, or any other Ameritech witness, performed a cost study to determine whether the flowthrough rate for UNE-P orders would be higher than for discrete, unbundled loop and port orders, which were the sole focus of the cost study on which his nonrecurring charges are based. (Turner Reply at 6)

Turner Surrebuttal Testimony. Mr. Turner's surrebuttal testimony addressed Ameritech's criticisms of the NRCM made in Ameritech's responsive filing. Mr. Turner noted that Ameritech's criticisms of the NRCM fell into five areas:

1. The NRCM uses nonrecurring cost definitions that invalidate it from being used to calculate nonrecurring costs;¹⁵
2. The NRCM applies the flowthrough/fallout percentages for systems in a manner that misapplies SBC's representation of the capabilities of its systems;¹⁶
3. The NRCM utilizes time estimates for nonrecurring activities from a panel of experts that do not represent the same times Ameritech's experts believe apply to the tasks;¹⁷
4. The NRCM does not explicitly permit Ameritech to recover the cost for OSS systems;¹⁸
5. The NRCM uses Dedicated Inside Plant (DIP) and Dedicated Outside Plant (DOP) assumptions of 100 percent that Ameritech believes overstate the actual level of DIP and DOP in its network.¹⁹

¹⁵ Responsive Testimony of Dr. Kent A. Currie on Behalf of Ameritech Indiana (hereafter "Currie Rebuttal"), Cause No. 40611-S1, November 20, 2001, at 4.

¹⁶ Currie Rebuttal at 4.

¹⁷ Currie Rebuttal at 5.

¹⁸ *Id.*

¹⁹ Currie Rebuttal at 33-36 and Rebuttal Testimony of Michael D. Jarmon on Behalf of Ameritech Indiana (hereafter "Jarmon Rebuttal"), Cause No. 40611-S1, November 20, 2001, at 3-12.

Mr. Turner pointed out the sum effect of these criticisms on the NRCs proposed by the NRCM. Mr. Turner proposed a nonrecurring cost for the UNE-P of \$0.25. By way of comparison, Mr. Turner calculated that, if the Commission took all of the changes that Ameritech Witness Dr. Currie proposed and implemented these in the NRCM except for the change in the fallout percentage, the new nonrecurring charge would be \$0.33. Thus, according to Mr. Turner, all of the other changes that Dr. Currie proposed only increased the cost by \$0.08. However, Mr. Turner argued that, when all of Dr. Currie's changes are implemented including changes to the fallout percentage, the new nonrecurring charge for the UNE-Platform is [Confidential \$]. "In other words, while all of Dr. Currie's modifications except for flowthrough lead to only a difference of [Confidential \$], the change in the flowthrough percentage accounts for [Confidential \$] in difference between my proposed cost and Ameritech's. (Turner Surrebuttal at 17) According to Mr. Turner, the flowthrough assumption accounts for 96.4 percent of the difference between his run of the NRCM and Ameritech's.²⁰ (Turner Surrebuttal at 29)

Mr. Turner additionally rebutted new alternative values for NRCs presented for the first time by Ameritech Witness Currie in his responsive testimony. Rebutting Dr. Currie's first criticism that the NRCM ignores cost causation principles and therefore uses improper inputs, Mr. Turner stated that cost causation is the main principle distinguishing Ameritech's proposal for nonrecurring costs from that presented by the Joint Sponsors in the NRCM. Mr. Silver indicated that the \$102.05 nonrecurring charge is based on the *summation* of four separate nonrecurring charges: (1) Loop Service Order Establishment (\$14.57); (2) Line Connection Charge per Termination (\$29.33); (3) Analog Line Port (\$44.01); and (4) Analog Line Port Service Order (\$14.14).²¹ Mr. Silver indicated that the \$72.72 nonrecurring charge is based on the summation of three separate nonrecurring charges: (1) Loop Service Order Establishment (\$14.57); (2) Analog Line Port (\$44.01); and (3) Analog Line Port Service Order (\$14.14).²² These nonrecurring charges come from an earlier cost docket that established the *individual* nonrecurring charges for the unbundled elements – not a *combination* such as the UNE-Platform, which is the topic of the present proceeding. (Turner Surrebuttal at 4)

Mr. Turner testified that Ameritech's approach improperly skews the results. In his opinion, Ameritech's approach does not take into consideration the following Commission directive from the main docket:

For the purposes of this UNE pricing order, we find that Ameritech Indiana should provide prices for those combinations already included in its various interconnection agreements. The prices for such combinations should be determined by subtracting

²⁰ Ameritech Confidential Cross Exhibit No. 4 shows Ameritech Indiana's actual flowthrough capability is even higher than estimated by the NRCM.

²¹ Direct Testimony of Michael D. Silver on behalf of Ameritech Indiana, Cause No. 40611-S1 (hereafter referred to as "Silver Direct"), Corrected Attachment 2, Lines 6-9.

²² Silver Direct, Corrected Attachment 2, Lines 6 and 8-9.

from the sum of the combined UNEs those UNE costs which are avoided by virtue of their purchase as a package.²³

Mr. Turner also rebutted Ameritech's argument that the NRCM includes "no one time labor cost for any service or UNE" because "labor is hired year after year" making it appear as if it were a recurring cost.²⁴ Mr. Turner stated, "Dr. Currie has created a red herring argument to rebut in his testimony that absolutely does not represent the approach taken in the NRCM." (Turner Surrebuttal at 5) Mr. Turner asserted that incremental labor costs are included in the NRCM even though labor is hired "year after year." (*Id.*)

Mr. Turner also responded to Dr. Currie's argument that the NRCM could include capitalized assets used to provide unbundled network elements because these are only ordered one time.²⁵ Mr. Turner stated that Dr. Currie has again "created a red herring argument so that he can criticize it. However, the reality is that capitalized assets that should have their costs recovered over their useful lives are recovered as recurring charges – as Ameritech does – and the NRCM does not include these costs in the NRCM. In short, Dr. Currie may not like the precise wording of definitions used in the NRCM, but the negative inferences that he has drawn from the definition have absolutely not been incorporated in the NRCM." (Turner Surrebuttal at 6)

Mr. Turner also responded to arguments made by Dr. Currie relying upon Ameritech's cost studies filed, but never approved for the setting of wholesale rates, in Cause No. 40785-S1. First, Mr. Turner noted that Ameritech did not file any cost studies supporting its proposed nonrecurring charges with its direct case in this proceeding even though this Commission specifically directed Ameritech to do so, as discussed earlier. Mr. Turner's second point was that he could not evaluate these criticisms because Ameritech did not file the cost studies in this proceeding. (*Id.*) As such, even though the cost studies to which Dr. Currie compared the NRCM are not in this proceeding, Mr. Turner stated the comparison would be useful because it illustrates that Ameritech's studies were not combination studies. (Turner Surrebuttal at 6-7)

Mr. Turner also rebutted Ameritech's theory that the NRCM assumed the use of systems that Ameritech may not deploy in the foreseeable future. He stated that the NRCM did not assume hypothetical or futuristic systems, but instead assumed the efficient deployment of systems that Ameritech already has in place for itself. Moreover, the NRCM reasonably assumed that Ameritech will perform for CLECs with flowthrough for these systems at a comparable level to the flowthrough Ameritech experiences for its own orders. (Turner Surrebuttal at 7)

²³ Indiana Utility Regulatory Commission Order, Cause No. 40611, June 30, 1998 at 47.

²⁴ *Id.*

²⁵ *Id.*

Mr. Turner rebutted Dr. Currie's testimony regarding flowthrough, stating that, in his opinion, the primary problem is that Dr. Currie has redefined flowthrough in such a way that it has no real meaning. Dr. Currie has defined flowthrough as follows:

Flowthrough is generally defined as the mechanized transcriptions of service requests into the service provider's order format such that it facilitates automated processing. Flowthrough applies solely to the OSS ordering function, not the OSS provisioning function.²⁶

Mr. Turner strongly disagrees with this definition; he believes that the definition of flowthrough should include pre-ordering, ordering, and provisioning. (Turner Surrebuttal at 9)

Mr. Turner testified that the most fundamental flaw in Ameritech's flowthrough argument, however, from the CLECs' perspective, is the flowthrough rate. Dr. Currie provided a rerun of the NRCM using assumptions that Ameritech believes are appropriate. In this rerun, Ameritech represents that the end-to-end flowthrough rate should be **[Confidential %]**. (Turner Surrebuttal at 11) According to the CLECs, this figure, however, is inconsistent with Ameritech's own performance data for both resale and UNE-P in Ohio and Indiana. CLECs argued that this shows that Ameritech's actual flowthrough rate is even greater than that estimated in the NRCM. (Currie Rebuttal, Currie Response Support 1, NRCM Output Tab. *See*, Ameritech Confidential Cross Exhibit No. 4)

Mr. Turner rebutted Ameritech's criticism of the NRCM that it does not use time and motion studies, noting that Ameritech did not provide a cost study with its direct filing for nonrecurring charges, and further failed to provide a time and motion study in his rebuttal testimony. Moreover, Dr. Currie did not identify any specific time adjustments that he would propose for this proceeding. (Turner Surrebuttal at 16)

Mr. Turner rebutted Ameritech's contention that the Commission should rely upon AT&T TOC studies prepared for use on other states for private line services. Mr. Turner noted that these studies were prepared in 1997 or before, are not specific to Ameritech Indiana, and were not prepared with TELRIC principles in mind. Moreover, these studies were not relied on in any way to develop the inputs for the NRCM. Rather, a team of experts with experience with the incumbent LEC processes in question was assembled to develop the inputs used for the NRCM. (Turner Surrebuttal at 17-18)

Mr. Turner also rebutted Ameritech's criticisms of the nonrecurring cost definitions used in the NRCM. According to Mr. Turner, there are two classes of costs that Dr. Currie believes should be recovered in nonrecurring charges that are not presently included in the NRCM. First, the nonrecurring cost model does not explicitly account for OSS cost. In other words, the NRCM does not estimate the cost for OSS development and implementation and divide this by the number of activities to arrive at a

²⁶Currie Rebuttal at 10.

cost per order for OSS. Second, the NRCM does not include the cost for customer service representatives within Ameritech to manually handle orders originating from the CLECs across an electronic interface. (Turner Surrebuttal at 19-20)

Mr. Turner noted that the OSS costs are legitimate. The forward-looking cost associated with providing the OSS necessary to provision orders should be recovered through existing recurring rates as discussed more fully below. However, Mr. Turner argued that the customer service representative costs are not legitimate. According to Mr. Turner, the CLECs bear these costs directly. When an end user customer contacts the CLEC to order service, it is a CLEC customer service representative that takes the order from the customer and populates its own system with the information necessary to provision the order. This system is then connected electronically to Ameritech to pass the information that is necessary to provision the order within Ameritech. Mr. Turner argued that Ameritech's customer service representatives do not enter into this process because the CLEC customer representative has already collected the information necessary to complete this order and provided the information (electronically) to Ameritech. (Turner Surrebuttal at 20)

Thus, according to Mr. Turner, where there is fallout for UNE-P orders, it would not be in the form of an Ameritech customer service representative. Instead, Mr. Turner argued, fallout for UNE-Platform orders should be sent directly to the Recent Change Machine Administration Center ("RCMAC") to handle the problem. It is the RCMAC that resolves these problems and the fallout should be sent directly this organization rather than unnecessarily being routed through an Ameritech customer service representative. (*Id.*)

Mr. Turner also argued that efficient OSS costs should be recovered through recurring rates. He argued that the systems costs that Ameritech is attempting to recover through nonrecurring charges, as described above, are already included in the support assets and overhead loading factors. Mr. Turner stated the OSS run on various computers. According to Mr. Turner, the various TELRIC models of recurring costs use the general-purpose computer accounts to build the estimates of recurring costs of unbundled network elements. "The computers on which the OSS run are kept operational 24 hours per day, so there is no incremental power costs to perform any of these transactional functions. The various TELRIC models use power accounts to build estimates for recurring costs of unbundled network elements. Thus, both the hardware and power costs are recovered in recurring rates. In short, the NRCM assumes that the costs of the underlying OSS (hardware, system software, processor costs, updates, and upkeep) are recovered in the incumbent's recurring wholesale and retail rates. Additionally, mechanization in general lowers costs in the long run." (Turner Surrebuttal at 21-22)

Mr. Turner responded to Ameritech witness Jarmon's concern whether there should be separate charges for the disconnect and the installation of service. First, Mr. Jarmon agreed with Mr. Turner that "installations and disconnections are two separate activities" and therefore a close linkage to

the principle of cost causation would require that there also be two separate charges.²⁷ It is because of the principle of cost causation that the NRCM separately identifies installation and disconnection costs. Second, Mr. Turner recognized that many Commissions have already set a precedent of combining the installation and disconnect costs into a single nonrecurring charge and it would not necessarily make sense at this point in Indiana to revisit this approach. As such, if the Commission determines that the charges should be combined, the Commission should direct that Ameritech also incorporate the concept of time value of money into the disconnect cost and discount the disconnect charge for the average time that the unbundled element would be in service.²⁸ (Turner Surrebuttal at 23-24)

Mr. Turner also rebutted Ameritech's concerns about the NRCM's assumption regarding the DIP and DOP. It appears that Ameritech's main concern is over the DIP and DOP levels that the NRCM assumed, which is 100 percent. Mr. Jarmon's testimony represented that the DOP percentage in Ameritech's network would be approximately [Confidential %].²⁹ He also indicated that the DIP percentage would be approximately [Confidential %].³⁰ The average of these two values would yield an approximate dedicated plant percentage of [Confidential %]. "The question is, on a forward-looking basis, what this rate should for DIP and DOP be." (Turner Surrebuttal at 24) Mr. Turner provided some considerations this Commission can evaluate in at least framing this question. First, Mr. Turner argued, most of the UNE-P orders that are placed are for migrations of existing Ameritech customers to the CLECs network. Most of these orders are for unbundled loops (where DOP is vital) or for unbundled loop-port combinations (where DIP and DOP are both vital). Mr. Turner stated that he believes these orders would constitute approximately 90 percent (or more) of the orders that are being placed by CLECs with Ameritech. In other words, according to Mr. Turner [and assuming that 100% of these types of migration orders should be considered DIP or DOP], a minimum percentage to use for DIP and DOP is 90 percent even if Ameritech did not pre-wire anything in its network. Second, the remaining 10 percent of UNE-P orders will be for new service. Even if Mr. Jarmon's conservative value of [Confidential %] is used and applied to the 10 percent of orders that are for new service, this yields a DIP and DOP percentage of approximately 95 percent. Thus, there is a strong support for a very high DIP and DOP percentage (Turner Surrebuttal at 24-26)

Mr. Turner also disputed Mr. Jarmon's claim that lines that are already connected may not be considered "dedicated" by Ameritech. Mr. Jarmon's concern is that Ameritech may implement the customer with cross-connect arrangement and therefore not consider this arrangement as "dedicated." Specifically, Mr. Jarmon notes the following:

²⁷ Jarmon Rebuttal at 15.

²⁸ Specifically, the Commission would need to identify a time period over which the disconnect cost would be discounted. Mr. Turner recommended five years. The Commission would then identify the present value factor using the cost of money it has determined for Indiana. If the Commission used, for example, a cost of money of 9.5 percent the present value factor would be $0.6352 (1 / (1 + 0.095)^5)$. The resulting factor would be multiplied times the disconnect cost and added to the installation cost to derive the combined nonrecurring charge.

²⁹ Jarmon Rebuttal at 5.

³⁰ Jarmon Rebuttal at 11.

For example, in the central office, a switch port and loop that are connected through an proficient cross connect, would be dedicated. If however the switch port and loop were connected through multiple tie pairs and multiple frames due to a lack of facilities or frame congestion, it would be dedicated. These types of connections are much less proficient and would not be as likely to be dedicated.³¹

Mr. Turner disagreed with Mr. Jarmon because, from his perspective, Mr. Jarmon did not account for TELRIC principles in determining the forward-looking dedicated plant percentage. Mr. Turner stated that it would not be consistent with TELRIC to assume that Ameritech's implementation of loop-port combinations for its own use or wholesale use would be implemented in an inefficient manner. Under this interpretation of TELRIC principles, Mr. Turner argued that it would be appropriate to assume that combined loops and ports represent dedicated plant. (Turner Surrebuttal at 26-27)

Turner Cross-Examination Testimony. Under cross-examination, Mr. Turner opined that, in the event the Commission were to adopt each of Ameritech's criticisms of the NRCM (other than modifying the NRCM fallout assumptions, which Mr. Turner testified are more conservative than Ameritech Indiana's own fallout data), the NRC would only increase to \$.33. (Tr. AA-275) Mr. Turner also testified that, in his opinion, actual Ameritech Indiana fallout rate data for electronic orders supports the NRCM's assumptions. (Tr. AA-276)

C. Z-Tel. Dr. George Ford provided an analysis of the relative reasonableness of rates based on a "TELRIC test" he developed through analyzing various FCC Section 271 orders. The basic premise of Dr. Ford's analysis (which utilizes the FCC's HCPM Universal Service model) is that UNE rate differentials should comport with UNE cost differentials across states. (Ford Reply at 3-5) Dr. Ford used this test in addressing switch and transport costs.

Although the HCPM does not produce estimates for NRCs, Dr. Ford asserted that the logic is still valid for comparison purposes. (Ford Reply at 11) Dr. Ford argued that, since SBC will provide migrations and new installations for CLEC customers through an integrated OSS system, this is reasonable. (Ford Reply at 11-12) For reference, Dr. Ford looked to other SBC states, particularly, Texas, Ohio, Illinois and Michigan. Dr. Ford set out the comparisons between Indiana and these other, selected SBC states as follows:

<u>Jurisdiction</u>	<u>UNE-P Migration</u>	<u>UNE-P Installation</u>
Ameritech Michigan (approved)	0.35	17.82
Ameritech Ohio (approved)	0.74	NA

³¹ Jarmon Rebuttal at 10.

Ameritech Illinois (approved)	1.02	1.02
SBC Texas (approved)	2.56	23.09
Ameritech Indiana (proposed)	28.71	102.50

(Ford Reply at 16)

Dr. Ford explained the rates proposed by Ameritech Indiana could impede the development of competition in Indiana in two ways. According to Dr. Ford, in an absolute sense, the high rates would cut deeply into the margin of a new entrant, and make it difficult to make a business case for entering a market. In addition, Dr. Ford argued that, in a relative sense, these rates would deter market entry in Indiana especially, as competitors would invest capital in neighboring states with rate levels they would perceive to be more reasonable (Ford Reply at 17-18; *See* also GSF Reply Ex 3)

On redirect examination, Dr. Ford explained the business decision that faces a new entrant:

The entry decision of a company like Z-Tel is not terribly complicated. We consider what we can sell the service for. We consider how much it costs to put the service together and the cost for the UNE elements are a big chunk of that cost. And we subtract them and hope it's positive. And if it is, we then say, okay, then now we have to recover the nonrecurring charge. And if it takes an unreasonable amount of time just to recover the nonrecurring charge out of the margin of revenues over incremental costs, then you don't enter. And a hundred dollars, it takes a long time to recover a hundred dollars on nonrecurring charge. (Tr. 318, l. 4-17)

Dr. Ford concluded, "If we get a decision here like we got in the other states, Z-Tel will be here selling service." (Tr. 319, l. 12-14)

D. Findings. As we stated in our August 29, 2001 Order, this proceeding is divided into two phases. The first phase "will address the rate for unbundled local switching ("ULS"), including the port and usage costs, if any, of the shared transport component of ULS and recurring and nonrecurring charges for all UNE combinations, including new installations when facilities are present but dial tone is not present and migrations." (Order at 2) Thus, in this phase of the case we set the nonrecurring charges for various UNE combinations, as well as the monthly recurring port charges.

As we required in our August 12, 2001 Order, interested parties were offered the opportunity to file cost-studies supporting proposed rates on October 15, 2001. On that date, only AT&T/WorldCom/McLeod filed cost studies supporting their proposed NRCs. Ameritech did not, and later took the position in testimony and its briefs that its NRCs were previously approved in Cause No. 40611, and that it was not seeking a change to these rates. Moreover, in its brief, Ameritech

further argued that the Commission is *foreclosed* from even considering new NRCs here unless they were somehow based upon Ameritech's cost studies filed five years ago in Cause No. 40611.³²

We reject Ameritech's argument. It is clear that Phase I of this proceeding expressly is designed to establish NRCs for UNE-P, which means that parties filing a particular cost model should support the proposal with a cost study. We said that repeatedly in a number of orders, including the most recent procedural order issued on August 29, 2001,³³ and also explicitly said so in the AT&T/Ameritech Indiana interconnection case, where we deferred the issue of establishing NRCs for UNE combinations to the instant case because no cost studies or other information were provided in that proceeding.³⁴

Moreover, Ameritech itself previously acknowledged that cost studies would be submitted here. In Ameritech Indiana's Submission of Suggested Process and Schedule filed on July 16, 2001, Ameritech noted that it "contemplates that Ameritech Indiana will perform at least twenty to twenty five cost studies." Ameritech's decision to forego filing cost support is therefore certainly not based upon any contrary Commission decision, and is inconsistent with its earlier declaration that it would file "twenty to twenty five cost studies."

We are therefore left with a record that contains one cost study – the AT&T/WorldCom/McLeod Nonrecurring Cost Model ("NRCM"). We will therefore examine that cost model and consider Ameritech's criticisms of it, to determine what NRCs should be established.

The NRCM is based upon the following assumptions regarding Ameritech's OSS:

- Highly integrated and automated (electronic/non-manual) OSS; this assumption logically leads to a high flowthrough rate for pre-ordering, ordering, and provisioning, expressed as a single (combined) percentage.
- A fallout rate of 2% or less.
- Manual work times should reflect appropriate intervals based on the use of forward-looking network technologies.
- Service orders are typically processed through a non-designed POTS provisioning process as opposed to a designed services process (A non-designed POTS provisioning process will be less expensive than a designed services process).
- Incorporates automated "Intelligent Network Elements" (SONET, GR-303 IDLC,

³² Ameritech Witness Dr. Currie referred to cost studies filed in the Opportunity Indiana 2000 case, Cause Nos. 40785-S1/40849. The studies Dr. Currie references, however, were not presented here. In addition, the settlement in the Opportunity Indiana 2000 case, specifically Part X, exempts wholesale services from the rates set. Hence, we are not relying upon these cost studies.

³³ Ameritech's witnesses stated that they did not rely upon the August 29, 2001 order for the requirement that parties proposing a cost model file cost studies on October 15, 2001 with their direct case. (*See*, Tr. AA-27).

³⁴ Order, Cause No. 40571-INT-03 at 44 (November 20, 2000). *See, also*, page 49 of that Order, where we stated that the "pricing for permanent rates for all combinations should be dealt with in Cause No. 40611-S1."

DCS/EDSX, LDS, etc.) in its assumptions (this would lead to a higher flowthrough level for the provisioning of orders.

- The same work centers, work groups, technicians, and associated labor rates are generally modeled at parity with how Ameritech provides similar services to itself.
- Only costs for activities that cannot be reused for future customers are included as a nonrecurring cost.
- Installation and disconnection are calculated separately to account for cost differences dependent on a new entrant's disconnect decisions regarding DIP/DOP.

In analyzing the CLECs' arguments regarding the NRCs for UNE-P and other combinations (based, in large part, on the NRCM), we first consider whether to set the nonrecurring charges for UNE-P and other combinations equal to the sum of the component UNEs or to view the UNE-Platform and other combinations as distinct offerings that require their own prices. Even if Ameritech had refiled now its five-year old cost studies originally used in Cause No. 40611, Ameritech's rate proposal here, which uses a sum of the parts methodology to price UNE combinations, would ignore our oft-repeated rejection of such an approach for UNE combination pricing.³⁵ This is because we required in our June 30, 1998 Order in Cause No. 40611 that the prices for UNE combinations "should be determined by subtracting from the sum of the combined UNEs those UNE costs which are avoided by virtue of their purchase as a package."³⁶ To ensure that Ameritech would comply with this mandate when we established permanent pricing, we directed Ameritech to this requirement in the AT&T/Ameritech arbitration.³⁷ We therefore reject Ameritech's NRC proposal to use a sum-of-the-parts approach to setting nonrecurring charges for the UNE-Platform and the other combinations requested by the CLECs in this Subdocket.

The primary Ameritech criticism of the CLECs' NRCM is of the manual fallout rate for electronic UNE-P orders used by the NRCM. There are several significant disagreements between the CLECs and Ameritech regarding flowthrough and fallout issues. First, the CLECs claim that preordering, ordering, and provisioning systems and processes are seamlessly integrated and that flowthrough should be measured based on that assumption. (Turner Surrebuttal at 8-11) In reaching the position that flowthrough or fallout rates should include a measurement for provisioning, the CLECs appear to assume that Ameritech will rarely, if ever, disconnect inside or outside plant dedicated to serving a current, individual Ameritech customer prior to migrating the customer to a CLEC and that little or no dispatch or field work will be required. An assumption of a high flowthrough/low fallout rate for provisioning, when coupled with the CLECs' assumption of an integrated chain of preordering, ordering, and provisioning OSS, and the assumption of high flowthrough rates for pre-ordering and ordering, leads to the assumption of a high flowthrough rate for that entire OSS chain, which (Mr. Turner would argue) should be reported a single percentage figure.

³⁵ See Tr. at AA-85.

³⁶ Order, Cause No. 40611, June 30, 1998 at 47.

³⁷ Order, Cause No. 40571-INT-03, November 2000 at 49.

Third, CLECs argue that flowthrough rates for retail and resale transactions, systems, and processes should be used as a proxy for UNE-P flowthrough rates. (Turner Surrebuttal at 14,15) In arriving at their proposed fallout rate of 2%, the CLECs claim that one of Ameritech's affiliates within SBC, SWBT, achieves a flowthrough rate of less than two percent using the EASE system, a proprietary system for SWBT's retail and resale orders. (Turner Surrebuttal at 9, 10)

Finally, Mr. Turner argued that the UNE-P orders for Migrations, Installs, Disconnects, and Feature Changes (the CLECs' proposed Combinations No. 1 through 4) are not complex orders. Mr. Turner argued that orders for Combinations No. 5 through 10 (all EELS offerings) "are considered complex orders in the NRCM in that they are a combination of a loop and a dedicated transport." (Turner Surrebuttal at 12, 13)

Regarding DIP and DOP, Mr. Jarmon includes DIP and DOP rates on pages 11-12 of his confidential rebuttal testimony. We make the following observations regarding the DIP and DOP rates that Mr. Jarmon reported in his rebuttal testimony. First, he reports separate DIP and DOP rates, rather than a single (combined) DIP/DOP rate. (Jarmon Rebuttal at 11, 12.) Second, Mr. Jarmon's reported DOP rate is significantly lower than the rate that Mr. Turner claims he reported. (Turner Surrebuttal at 25) However, the DIP and DOP rates that Mr. Jarmon included do not appear to be specific to UNE-P or other combinations. Furthermore, Mr. Jarmon did not differentiate between DIP and DOP rates for customer migrations and those for new installations, regardless of the products or services involved. Thus, while an assumption of 100% DIP and DOP rates for UNE-P and EELS may be higher than what Mr. Jarmon has observed, his testimony does not allow us to determine an alternative figure for either DIP or DOP. We are particularly wary of assuming such low DIP and DOP rates for customer migrations for Combinations No. 1, 5, and 8 that the CLECs have proposed.

While we cannot predict with certainty what Ameritech Indiana's flowthrough rates will be over the long run, it is reasonable to assume that flowthrough rates will increase substantially in the long run as Ameritech replaces many (although not necessarily all) of its manual processes with more efficient electronic processes and systems. We believe it is appropriate to create incentives for Ameritech to behave in a more efficient manner and to reduce its reliance on manual processes wherever possible, and as soon as possible; such incentives can include setting prices that assume a high flowthrough rate (although not necessarily the 98% rate that CLECs propose).

Based upon the evidence of record and consistent with the FCC's TELRIC methodology, we find that the minimum flowthrough rate to be used in this subdocket is 90%, which is derived by adding five percentage points to the upper end of the range (85%) expressed by Ameritech Ohio witness, Mr. Mitchell (90% = 85% + 5%), to induce Ameritech to achieve greater efficiencies. (Currie Reply at 68). We will continue to monitor the pertinent flowthrough and change management documentation from SBC/Ameritech (including, but not limited to, the Ameritech FlowThrough and Exceptions documentation, the 24-Month AIT Flowthrough Plan, the 12-month OSS and change management view document and miscellaneous accessible letters), as well as flowthrough Observations and

Exceptions or other documents, data, or information provided to the Commission in the context of the 3rd party test of Ameritech's OSS, or elsewhere in Cause No. 41657. As flowthrough definitions, assumptions, or business rules change; as flowthrough rates projected for the near future increase; and as the Commission learns more about both potential and actual flowthrough/fallout rates and the factors which may contribute to those rates (for example, in the 41657 OSS/Section 271 proceeding), we may revisit the flowthrough and fallout assumptions that we are requiring the parties to use in this Order.

Comparison of NRCs between SBC/Ameritech States

We note the considerable record evidence that Indiana's neighbors have already adopted NRCs similar to those proposed by Mr. Turner under certain circumstances. In Illinois, Michigan and Ohio, Ameritech is required to charge NRCs of \$1.02, \$.35 and \$.74, respectively. This contrasts with Ameritech's NRC proposals here that range between \$28.71 and \$102.05. Indeed, Ameritech's affiliates in other states (Texas and Illinois, for example) have agreed to or proposed NRCs that are substantially smaller than what Ameritech sought here.

Mr. Silver's argument that we should rely on previously approved cost studies in setting NRCs for UNE-P and other combinations appears to be based on the argument that NRCs for UNE-P and other combinations should be based on a sum-of-the-parts methodology using rates that Ameritech alleges we have previously approved. We have rejected this argument, both in Cause No. 40611³⁸ and elsewhere in the instant order.

We now address Ameritech's concerns that CLECs are not making a fair comparison. As noted below, we are deferring any decisions on the costs and prices related to certain Ameritech OSS or functionalities; thus, we need not consider this portion of Mr. Silver's concerns here. Excluding the OSS charges, Mr. Silver identified three scenarios in which he believes the actual (complete) NRCs in other Ameritech states were higher than what the CLECs reported in the instant subdocket:

- Line port installation charges for migration of existing combinations without dial tone in Michigan
- Trunk port installation charges for UNE-P migrations in Michigan and Ohio.
- Loop and port charges for new UNE combinations in Illinois

We note, first of all, that Ameritech did not dispute the accuracy of the \$0.35 and \$0.74 UNE-P migration NRCs for Michigan and Ohio, respectively. Keeping in mind our rejection of the sum-of-the-parts pricing methodology, the Company's primary remaining concern seems to be that those charges were incomplete and that additional charges would apply in certain circumstances. Ameritech's position is confusing. We will discuss Mr. Silver's three scenarios in the order presented above. In his reply testimony filed in this subdocket, in response to the question, "Would Ameritech still apply the

³⁸ Cause No. 40611, Order at 47 (June 30, 1998).

Port NRC to a request for UNE-P migrations”, Mr. Silver stated, “No. Ameritech has reconsidered its earlier position, and has decided to only charge the unbundled loop service order NRC and the unbundled port service order NRC for UNE-P migrations.” (Silver Reply at 4)

Regardless of what it may charge in Michigan, it appears that Ameritech is *not* proposing to charge “line port installation charges for migration of existing combinations without dial tone” in Indiana. Thus, it is proper to exclude these line port installation charges from the NRC for Combination No. 1. CLECs did not request a UNE-P combination that included a trunk port and trunk (loop-switch-trunk), nor did Mr. Silver propose any NRCs for such a combination. Therefore, Mr. Silver’s comments about the exclusion of trunk port installation charges from the \$0.35 and \$0.74 NRCs from Michigan and Ohio, respectively, is irrelevant to the discussion of what the appropriate charge should be for the CLECs’ proposed Combination No. 1. Therefore, it is also proper to exclude the trunk port installation charges from the NRC for Combination No. 1. We have addressed the port charge elsewhere in this Order; hence, we do not need to discuss that charge again here for new UNE-P installations. As no party has disputed the loop rate in Phase I of this Subdocket, we do not need to address the loop rate in this Order, either, for Combination No. 2.

While a comparison of the rates and charges between jurisdictions is not a substitute for rate setting, it can operate as a check on proposed rates here and their connection to approved rates in related jurisdictions. Thus, such an analysis cannot tell us what the precise UNE-P charges in Indiana should be to the penny. It can and does tell us, however, that a rate that is as much as one hundred times higher in Indiana than in Illinois must be supported with clear and convincing evidence. Even though given the opportunity, Ameritech has failed to provide such justification. We therefore conclude that none exists. We have already rejected the notion that the NRCs for UNE-P and other combinations should merely equal the sum of various prices that the Commission may have already approved in the past. Thus, Ameritech’s philosophical objections to assessing (in Indiana) the \$11.79 charge it proposed in Illinois, rather than assessing the sum of various charges Ameritech alleges this Commission has previously approved, are rendered moot. A comparison between the NRCs that Ameritech proposed for new installations here and what it proposed in another state is perfectly reasonable, from a philosophical or conceptual standpoint. Next, we note the implication in Mr. Silver’s testimony that the \$11.79 proposed in Illinois only included loop and port service order charges. As we are deferring a decision on OSS charges, the NRC we set for new UNE-P installations need not include those charges.

OSS Charges

The Commission agrees with the Parties that OSS charges are legitimate. (Turner Surreply at 19, 20.) However, there is insufficient evidence in the record to establish those charges. We will revisit this issue after the Commission determines the 3rd party OSS test that KPMG Consulting and the Test CLEC are currently conducting is complete, or at least substantially complete, for Indiana. At a minimum, parties should be prepared to file testimony on whether Ameritech should assess the following

charges for UNE-P and other combinations in Indiana and, if so, under what circumstances: service ordering charges and feature ordering charges (if any). Parties should be prepared to file cost studies for these charges and propose rates or charges, as well. We will provide more detailed instructions at the appropriate time.

Summary

New entrants must only incur costs equal to those that Ameritech would incur using a forward-looking network architecture and efficient OSS. If the CLEC faces additional costs and obstacles, the CLEC is burdened with a barrier to entry and Ameritech has no incentive to become efficient. Nonrecurring costs must be based upon forward-looking long-run economic principles or the CLECs will have little chance to break into current ILEC markets.

We therefore find that Ameritech's proposed NRCs for UNE-P and other combinations are so high as to be unjust and unreasonable. Consistent with our analysis and findings, herein, we find that the following assumptions should be made:

1. Assume a 90% flowthrough rate/10% fallout rate for new UNE-P installations and migrations, for the purpose of setting NRCs.
2. Assume no line port installation charges for UNE-P migrations
3. Assume no trunk port installation charges for UNE-P migrations
4. OSS charges for UNE-P and other combinations to be calculated separately and determined later
5. The discrepancy between Turner and Ameritech's proposed NRCs, excluding the impact of differing flowthrough assumptions, shall be calculated as \$0.08 for Combinations No. 1 through 4 and 32% (\$0.08/\$0.25) for Combinations No. 5 through 10. This discrepancy factor shall be added to the NRCs that assume a 10% flowthrough rate, as described elsewhere.

We find these changes should produce the following rates and charges:

Elements	Non-Recurring Charge
POTS/ISDN BRI Migration (UNE Platform)	\$0.37
POTS/ISDN BRI Install (UNE Platform)	\$0.41
POTS/ISDN BRI Disconnect (TSR/UNE Platform)	\$0.41
Feature Changes	\$0.41
2 Wire Loop, different CO Migration	\$30.78
2 Wire Loop, different CO Install	\$12.98
2 Wire Loop, different CO Disconnect	\$11.95

4 Wire Loop, different CO Migration	\$31.24
4 Wire Loop, different CO Install	\$13.56
4 Wire Loop, different CO Disconnect	\$13.09

For Elements No. 1 through 3, because Mr. Turner did not calculate a price assuming a 10% fallout rate, we used the average percentage differentials between the prices resulting from 2% and 10% fallout rates (Turner Surrebuttal at 12) and applied them to the migration, install or disconnect UNE-P offering, as applicable (15%, 30%, and 30.5%, respectively). We assumed that a feature change (Element No. 4) was comparable to a UNE-P install, in its level of complexity and workload. Thus, we multiplied \$0.25 by 1.15, 1.3, 1.305, and 1.3, for Combinations No. 1, 2, 3, and 4, respectively. We then added \$0.08 to each of these products, to reflect the difference that Mr. Turner identified between the prices proposed by the CLECs and the prices proposed by Ameritech, absent the impact of any assumptions about flowthrough and fallout rates. For the last six elements we added 32% to each rate in the 10% fallout column in Turner Surrebuttal (page 12). As we did not have a summary statistic comparable to the \$0.08 differential for Combinations No. 5 through 10, we used the percentage differential between the \$.25 and \$.33 figures (32%) as a proxy for the impact of using Ameritech's assumptions, rather than the CLECs' assumptions. We then multiplied the price associated with the 10% fallout assumptions by 1.32 to develop the final price shown in the table above.

4. Unbundled Local Switching.

A. Ameritech Indiana. Ameritech did not propose a new charge for the Unbundled Switch Port in this proceeding. Instead, the Company took the position "that the Commission has not required new cost support for the unbundled port associated with shared transport." (Currie Reply at 4) As a result, no new Unbundled Network Element proposal has been made. (Currie Reply at 4) This is based upon the Company's reading of the Commission's Order setting the scope of this proceeding. As Dr. Currie indicated on cross examination:

Q. So if the Commission did believe that its Order required a cost study for unbundled ports associated with shared transport to be done in this docket, that would not be found in your testimony. Is that correct?

A. You're not going to find something that's not there, that's correct.
(Tr. 114, l. 2-8)

Ameritech proposed that its pre-existing monthly rate of \$5.34 for unbundled switch port remain in effect. (Tr. 49, l. 19-24; WorldCom/Z-Tel Cross Exhibit No. 4)

B. AT&T/WorldCom/McLeod. Dr. August H. Ankum testified and recommended a flat monthly rate for unbundled local switching of \$2.75. This flat rate would recover all costs previously recovered through the port charge, as well as the switching investment that Ameritech proposes be

recovered through a usage component. Alternatively, if the Commission were to adopt a bifurcated rate structure for unbundled local switching, Dr. Ankum recommended a monthly port charge of \$2.16 together with a usage charge of \$.000246 per minute of use.³⁹ (See also Ankum Rebuttal at 14-15)

Dr. Ankum's calculation of his recommended rates uses Ameritech's Switching Information Cost Analysis Tool ("SICAT"), corrected for alleged errors, to determine switching investments. Using Ameritech's own templates, these investments are converted into monthly costs that capture certain associated expenses by applying an annual charge factor ("ACF"). Next, other associated costs are added, including those costs typically recovered through a stand-alone port charge such as part of the MDF, telephone number, intercept, directory and other expenses. Finally, [Confidential %] is added for shared and common costs. This results in the \$2.75 flat monthly charge for unbundled local switching that Dr. Ankum is recommending. (Ankum Rebuttal at 14-15)

On cross and redirect examination, Dr. Ankum indicated that he believes it is preferable as a matter of economics and regulatory policy to price unbundled switching on a flat rate basis, rather than including a port charge with an additional usage-sensitive component.⁴⁰ As an economic matter, Dr. Ankum asserted that the vendor contracts upon which Ameritech procures switches do not include a usage sensitive component. (Tr. 439, l. 5-21) In other words, Dr. Ankum argued that, according to the vendor contract, Ameritech pays for switches on a per-line basis, and the switches are engineered to accommodate the volume of calling generated by those lines. Dr. Ankum asserted that there is sufficient excess capacity built into the per-line price of the switch that "the issue of usage becomes entirely irrelevant." (Tr. 369, l. 1-25) Dr. Ankum further asserted that Ameritech does not incur real usage sensitive costs for average lines under its current DND switch contracts. (Ankum Rebuttal at 17) and that the switch contracts do not contain usage-based charges. (Ankum Rebuttal at 16) Thus, according to Dr. Ankum, a cost study that attempts to apply a usage-sensitive cost to a port charge really only converts a fixed charge into a minute-of-use ("MOU") charge, and does not follow cost causation principles. (Tr. 440, l. 6-12)

As a matter of regulatory policy, Dr. Ankum suggested that a flat-rate switching charge is consistent with the Indiana market for local service because Ameritech Indiana's retail service is priced on a flat-rate basis. Since Ameritech incurs these costs on a flat basis and charges for them on a flat basis at retail, Dr. Ankum argued that setting the wholesale price on a usage-sensitive basis would impair the development of local competition. He stated:

The CLEC would be assessed usage charges, even though Ameritech itself would not assess such usage charges on the end user. And obviously where it concerns certain types of customers that have above-average usage, the CLEC would be charged a cost that begins to exceed what the – what is assigned to a retail customer. In addition, for

³⁹ These numbers reflect revisions made by Dr. Ankum during cross-examination. (Tr. 363, l. 14-20)

⁴⁰ As Dr. Ankum suggested, all port charges are flat rated; the issue is whether the switching component is included in that flat rate or separately stated as a usage-sensitive element. (Tr. 449, l. 5-13)

the high volume user, the competitor would begin to overcompensate Ameritech. In other words, we would be charged a cost greater than that which Ameritech incurs. (Tr. 449, 1.21-450, l. 7)

For these reasons, Dr. Ankum recommended that his proposed flat-rated charge be adopted. (Tr. 448, l. 16-24)

Dr. Ankum testified that it would be incorrect to continue the application of Ameritech's current port charge of \$5.34 for any of several reasons:

First, the Commission's Order in this Cause directed the parties to provide evidence on "the rate for unbundled local switching ("ULS"), including the port and usage costs, if any...."⁴¹ Despite this explicit direction from the Commission, Ameritech did not file cost support for its port charge and instead insists that "[t]he analog line port charge is not at issue in this proceeding; it was approved by the IURC in Docket No. 40611 and Ameritech Indiana is not proposing to change the approved rate."⁴²

Second, the old rate is based upon expired switching vendor contracts that are now two generations out of date, and not on SBC's current switching vendor contracts. (Ankum Rebuttal at 11) Those contracts expired in 1996. (Tr. 452, l. 14-17) Dr. Ankum also testified that the prices Ameritech pays for switches have decreased with each subsequent generation of vendor contracts. (Tr. 435, l. 4-17; 25; Tr. 436, l. 1-8)

Third, the old port rate is based on the old Switching Cost Information System ("SCIS") model, which is no longer in use and, like the vendor contracts upon which Ameritech relies, is also now two generations out of date. (Ankum Rebuttal at 11-12)

Fourth, the old rate of \$5.34 is greatly inflated compared with the rates proposed by Ameritech itself in other states based on updated data for use of the same switching facilities, as Dr. Ankum indicated in response to cross examination by the Public. (Tr. 345-348). Indeed, the old Indiana rate of \$5.34 is comparable to an Illinois rate of \$5.01 that was implemented based on the same vintage of contracts. In a more recent Illinois proceeding, however, based upon new data not utilized by Ameritech here, the Company's own proposed charge dropped from this \$5.01 to \$1.94. (Tr. 347, l. 11-348, l. 3)⁴³

Finally, an additional complexity is created by Ameritech's refusal to update its port charge, while proposing to revise its usage-sensitive switching charges. The propriety of the SICAT cost model

⁴¹ *In the Matter of Ameritech Indiana*, Cause No. 40611-S1, Prehearing Conference Order, August 29, 2001 at 2, as cited by Ankum Rebuttal at 10.

⁴² Ameritech Indiana's Responses to WorldCom Inc.'s Second Set of Data Requests, Answer to DR 11, as cited by Ankum Rebuttal at 11.

⁴³ See also, WorldCom/Z-Tel Cross Exhibit No. 4.

is discussed in more detail below with respect to switching investment costs. A second problem arises because of Ameritech's strategy to selectively update *switching* costs, but not *port* costs, through SICAT (the second generation successor of SCIS). The SICAT model allocates switching investments between (1) usage-sensitive (CCS-related) investments that are the basis for ULS-usage rates and (2) port-related investments that are the basis for monthly port rates. Under this construction (discounting possible problems with SICAT), one never recovers more than 100 percent of switch investment *provided that both port costs and ULS-usage costs are considered in the same proceeding*. By refusing to do this, Ameritech has eliminated one of the crucial safety valves against over-recovery. (Ankum Rebuttal at 12-13; emphasis in the original)

Dr. Ankum testified that even though Ameritech did not propose a new port rate, its switching studies ("SICAT") feed into its Network Usage Cost Analysis Tool ("NUCAT"), which support the charges for Unbundled Local Switching, as discussed below. The SICAT analysis also is relevant to support Dr. Ankum's proposed port charge. According to Dr. Ankum, to utilize the SICAT output, however, it is first necessary to correct multiple alleged errors in its application. Dr. Ankum summarized those alleged errors into six major categories as follows:

First, according to Dr. Ankum, Ameritech fails to fairly represent its switch vendor contracts and prices. Switch vendors extend large discounts to Ameritech for newly placed circuit switches; Dr. Ankum asserts that these discounts are not fully reflected in SICAT. As a result, according to Dr. Ankum, SICAT does not produce a Total Element Long Run Incremental Cost, but instead creates a short-run marginal cost study. The result is to overstate costs, according to Dr. Ankum. (Ankum Rebuttal at 37-38; Ankum Rebuttal at 50-55)

Second, Dr. Ankum argued, SICAT assumes an unjustified and unrealistic ratio of low-cost new/replacement lines and relatively higher-cost growth lines. New and replacement lines are cut over, or installed, at the time the switch is placed into service. Growth lines are put into service at a later time to accommodate increased customer demand. (Ankum Rebuttal at 40) Growth lines typically cost two to three times as much as replacement lines, so, to the extent that Ameritech overestimates the number of growth lines, it also over-recovers costs from CLECs. (Ankum Rebuttal at 41)

Dr. Ankum testified that Ameritech has excluded millions of lines from its computations in SICAT, which skews its line counts. He stated that it calculates the number of growth lines by counting the growth on all of SBC's switches in its 13-state service area. By contrast, the number of new and replacement lines was calculated by counting the handful of new switches that Ameritech plans to install in its five-state service region. In its SICAT calculations, Ameritech does not include millions of lower cost replacement lines on its existing switches, which Dr. Ankum argues must be counted to properly follow TELRIC principles. (Ankum Rebuttal at 43-44) In this case, Ameritech proposed a ratio of 30 percent lower-cost new/replacement lines and 70 percent higher-cost growth lines. Dr. Ankum testified that this precise ratio has already been proposed by Ameritech and rejected by the Michigan and Wisconsin Commissions for its failure to comply with TELRIC principles. (Ankum Rebuttal at 48-49;

Tr. 352, l. 11-355, l. 25) In his calculations, Dr. Ankum did include the millions of lower cost replacement lines that Ameritech had excluded. Consistent with this assumption, Dr. Ankum recommended a ratio of 70 percent new/replacement and 30 percent growth lines. (*Id.*) Both the Michigan and Wisconsin commissions have adopted this same replacement to growth line ratio, according to Dr. Ankum. (Tr. 354, l. 7-22)

Third, Ameritech introduces a per minute of use charge for local switching - based on usage cost calculations in both SICAT and NUCAT.⁴⁴ According to Dr. Ankum, however, SBC's own switching contracts demonstrate that Ameritech does not incur any usage costs. Instead, according to Dr. Ankum, it purchases its switching facilities on a per line and per trunk basis, with sufficient capacity to accommodate significant growth in usage so that usage is simply not a cause of switching costs.⁴⁵ Dr. Ankum alleged that the per minute-of-use charges assumed by Ameritech's use of SICAT are not based on current switch vendor contracts; instead, he argues, Ameritech bases them on a set of 1998 letters that are neither part of the vendor contracts, nor reflect any separate contractual obligation. (Tr. 438, l. 3-23)

Fourth, according to Dr. Ankum, Ameritech has applied inappropriately low fill factors in SICAT. He argues that these fill factors are not found in Ameritech's switch contracts, which assume considerably greater operating efficiency. As Dr. Ankum indicated on cross-examination:

The contracts include a contractual obligation on the part of the vendors to maintain a level of fill, below which they shall not fall. And so I would suggest to the Commission that we don't get engaged in a whole theoretical debate about where fill factors should be, that we simply go to the contract under which Ameritech has been operating for the last five years, where it has contracts in place that determine the fill factors. (Tr. 351, l. 13-23)

Doing this results in a fill factor of [**Confidential %**]. (Ankum Rebuttal at 55)

Fifth, Dr. Ankum asserted that Ameritech's proposed switch technology mix (Lucent, Nortel and Siemens) does not reflect a least-cost network. According to Dr. Ankum, Ameritech assumes a network with twice as many Lucent switches as Siemens switches. Dr. Ankum stated that Ameritech's own calculations in SICAT indicate that the Lucent switches are more than two-and-one-half times more expensive than the Siemens switches. Dr. Ankum argued that the relative proportion of the different vendors' switches should be adjusted to capitalize on the relative value of the less expensive switches. Dr. Ankum would lower the percentage of Lucent switches from [**Confidential %**] to

⁴⁴ Usage is frequently expressed in terms of a measurement referred to as Centum Call Seconds ("CCS").

⁴⁵ Peak usage for an average line in Indiana is about **3.6** CCS, according to Ameritech, and the basic analog line under the Lucent contract is engineered to handle **9.18** CCS at the peak. (Ankum Rebuttal at 18, citing Ameritech Indiana's Responses to WorldCom, Inc.'s Second Set of Data Requests, Answer to DR 3 and Lucent Contract 99006538, Exhibit 12A).

[Confidential %] and increase the percentage of Siemens switches from [Confidential %] to [Confidential %] (leaving the percentage of Nortel switches, which are priced between the Lucent and Siemens switches, unchanged). (Ankum Rebuttal at 57-59)

Sixth, According to Dr. Ankum, Ameritech assumes an inappropriately low line-to-trunk ratio of [Confidential #] (*i.e.* the switch needs one trunk port per [Confidential #] lines). This greatly increases the number of trunk ports that are needed on the switch beyond the number that Dr. Ankum stated is appropriate and thus drives up costs higher than Dr. Ankum believes is appropriate. The line-to-trunk ratio used in Illinois is [Confidential #]. Dr. Ankum argued that the calling patterns between the two states are similar and that, therefore, the Indiana number is unwarranted and should be adjusted to be consistent with the experience in Illinois. (Ankum Rebuttal at 61-62)

C. Z-Tel. Utilizing the FCC's HCPM Universal Service model, the basic premise of Dr. Ford's analysis is that UNE rate differentials should comport with UNE cost differentials across states. (Ford Reply at 3-5) The FCC has compared UNE rates between states in various Section 271 proceedings. Using Texas as a reference state, Dr. Ford concluded that the flat-rate switching charge in Indiana should be no more than \$4.17 per month as a maximum. (Tr. 315, l. 7-19)

D. Ameritech Reply.

1. Switch Usage Costs. In reply, Dr. Currie testified again on behalf of Ameritech. Dr. Currie confirmed that Ameritech had proffered no new cost studies for unbundled ports and reiterated his view that the Commission had not required that it do so. Since no new rates were proposed by Ameritech, no new cost studies were appropriate, he indicated. (Currie Reply at 4) Dr. Currie suggested that Dr. Ankum's arguments regarding port charges are incorrect because "the Commission has already approved permanent ULS port charges in Cause No. 40611 based on a compliance cost study." (*Id.*) Any action to set a new charge would constitute a re-application of TELRIC, the standards for which have not been set by the FCC. (Currie Reply at 4-8) Additionally, Dr. Currie takes exception to many of Dr. Ankum's adjustments to the SICAT model in computing a port charge and finds them to be either misinformed or the product of selective computations. (Currie Reply at 9-11)

Dr. Currie asserted that a primary issue in this proceeding is whether it incurs usage-sensitive costs for local switching, and whether it may recover those costs via a usage-sensitive rate element based on minutes of use in its ULS-ST offerings. Ameritech Indiana argues that even though it generally pays its switch vendors on a flat-rate, per-line basis, it nonetheless incurs usage-sensitive switching costs. (Currie Reply at 12) Ameritech Indiana asserted that the usage-sensitive rate element for the ULS portion of ULS-ST is necessary for it to recover these usage-sensitive costs.

Dr. Currie explained that the investment cost of the switch matrix – the equipment inside the switch that channels calls from the line port to the trunk port – is driven by, and tied directly to, how much the switch is used at the peak time (*i.e.*, the time of maximum use). Ameritech Indiana explains

that a switch's capacity to channel calls at the peak time is known as "CCS" (or "Centi- Call Seconds") capacity.

Dr. Currie stated that Ameritech Indiana incurs usage-sensitive switching costs tied to increases in CCS capacity in the following ways. First, Dr. Currie explained that the switch vendors do not install switches with sufficient CCS capacity to accommodate all potential usage. (Currie Reply at 14) As the CCS usage of a switch increases, additional equipment must generally be installed to accommodate that usage – equipment such as additional trunk ports, umbilicals, line units, and extra switching modules. *Id.* (Ameritech Indiana witness Mr. Jarmon also detailed the types of equipment added to switches in response to increases in usage. (Jarmon Reply at 7) Due to the addition of this equipment, a higher-usage switch costs the vendor more to provide than a lower-usage switch serving the same number of lines. (Currie Reply at 14) Dr. Currie explained that the switch vendors will not simply "eat" the costs of providing the additional equipment necessary to accommodate a higher-usage switch, but will instead pass these costs to Ameritech Indiana by adjusting their per-line prices upward at the first opportunity in order to maintain their expected level of profits. (Currie Reply at 14)

Second, Dr. Currie explained that Ameritech pays for "CCS jobs." These are orders that Ameritech places with its vendors for additional equipment necessary to handle growth in usage beyond that contemplated by the vendors at the time of switch installation. (Currie Reply at 14) And, contrary to the CLECs' suggestion, he stated that the charges for these jobs are based in the contracts; according to Ameritech, the contracts under which it currently purchases switching equipment (the SBC DND contracts) are the basis for determining how much Ameritech must pay for the additional equipment provided in CCS jobs. (*Id.* at 13)

Dr. Currie argued these examples show that usage is a cost-driver for switching – without increases in usage, there would be no need to augment the switches with additional equipment – and that Ameritech incurs these costs. (Currie Reply at 15) Consequently, Ameritech Indiana asserted that it is irrelevant whether switch vendors charge usage-based rates in their contracts. Dr. Currie stated that the contractual per-line prices are simply the way it *pays* for switching, but those prices say nothing about whether Ameritech incurs usage-based costs. Ameritech Indiana argued that it is the job of the cost analyst to take the per line prices provided in the contracts and determine the portion that is usage-related. And in fact, Ameritech Indiana noted that its vendor contracts *do* contain express provisions that cause it to incur usage sensitive costs when it buys switches. Dr. Currie also noted that one vendor's DND contract specifies per-line prices that are expressly dependent on the amount of usage for the line: the per-line prices are different for three different blocks of usage, and a higher usage line costs more than a lower usage line. (Currie Reply at 12; *see also* prices listed at Ameritech Cross Ex. 7 (SICAT model) at 2-3)

Ameritech Indiana asserted that without a usage-sensitive rate element for ULS it will be unable to recover its usage-related switching costs and will be forced to subsidize the switch usage of the CLECs and their customers. Ameritech Indiana explained that CLEC customers, in general, are business and institutional customers who use the switch much more during peak times than do residential

customers, who are primarily the customers of Ameritech Indiana. Therefore, Ameritech Indiana argued that CLEC users contribute much more to the switch's CCS capacity investment (because that investment is driven by use at the peak time), and therefore, the switch's cost.

Ameritech Indiana stated it is only fair to require those customers whose use plays a larger role in driving the CCS capacity of a switch to pay more. Ameritech Indiana argued that the usage-sensitive rate element is the only way to accurately ensure that each customer pays its fair share of the usage-related costs it causes. Ameritech Indiana asserted that under the CLECs' proposed flat rate, all customers pay the same regardless of how much or how little they use the switch, and that Ameritech Indiana and its generally low-use customers will therefore subsidize the switching costs of the CLECs and their generally high-use customers.

2. Type of Lines. Dr. Currie stated that under the DND contracts, Ameritech Indiana pays for switching on a per-line (or per-trunk port) basis. Dr. Currie explained that Ameritech Indiana buys switching capacity and equipment on a per-line basis from its switch vendors in three basic formats: "replacement" lines, "new" lines, and "growth" lines, and the contracts contain different prices depending on which kind of line is bought. (Currie Reply at 31) The "*replacement line*" price applies when SBC buys a digital switch that replaces one of a limited number of existing analog switches. (*Id.*) The "*new line*" price applies when SBC buys an entirely new digital switch, one that is not replacing any existing switch. (*Id.*) The "*growth line*" price applies to lines added to existing digital switches or to "replacement" and "new" digital switches already placed under the contracts. (*Id.*) Dr. Currie emphasized that while the "replacement" and "new" line prices apply only to a limited number of individual switches, the "growth" prices apply to all lines installed on any digital switch. (*Id.*) Ameritech Indiana also adds that the replacement and new line prices are relatively low, while the growth line prices are much higher. (See Ameritech Ind. Cross Ex. 7 at 2-3)

Ameritech Indiana explained that, despite this three-tiered contractual structure, it is really only buying a single thing regardless of the particular price it pays – namely, a functional line of switching. Ameritech Indiana argued that this contractual structure results from the competitive nature of the switch market. Vendors charge inexpensive (and often below-cost) replacement and new line prices to induce Ameritech to buy their digital switches. Once Ameritech does so, Ameritech becomes "locked in" to that vendor, and can only add additional growth lines to that switch by going back to that same vendor. Ameritech Indiana explained that the vendors know this and charge high growth line prices to recover both the cost of the growth lines and any loss taken on the low replacement and new line prices (plus a reasonable profit).

Dr. Currie explained that it is SICAT's job to take these various contractual prices (and other charges), combine them with the quantities of each kind of line that are expected to be provided under the contracts, and generate the single price that the vendor would charge SBC if it replaced its three-tiered pricing structure with a single per-line price – the price the vendors would charge for a line of switching if SBC went to them today and asked them to replace all of its switches. (Currie Reply at 31)

Dr. Currie explained that this single price per line calculated by SICAT represents the best estimate of the average forward-looking market price the switch vendors would charge SBC/Ameritech for any quantity of new lines. (*Id.*) Therefore, it is the appropriate price estimate to use in a TELRIC analysis. (*Id.*) This price is then used as a cost input in the NUCAT model, which, consistent with TELRIC, applies that price to the whole of SBC's network to develop the forward-looking cost of replacing the whole network from scratch.

Dr. Currie explained that the unit price generated by SICAT is directly tied to the actual forward-looking line quantities and prices contemplated by the vendors and SBC at the time the contracts were negotiated. (Currie Reply at 33) Dr. Currie explained that vendors know they are earning less profit on replacement and new lines than on growth lines. (*Id.*) In fact, in some cases, the vendors are losing money on the lines they sell to Ameritech. For instance, one vendor essentially gives away lines on seven new switches, *i.e.*, such lines are almost free to Ameritech. This is obviously below the cost of installing a new digital switch. (*Id.*) Dr. Currie also explained that, under the previous contracts, one vendor gave away lines on replacement switches for free, but that now that vendor's lines are now significantly higher under the DND contracts. (*Id.*) The vendors do this, Dr. Currie explained, because they know they will only have to provide a relatively small and limited number of replacement and new lines at these low prices because those prices apply only to particular analog switches in particular wire centers being replaced or to a small number of newly installed digital switches. (*Id.*) On the other hand, the vendors will be able to provide the higher-priced growth lines on all of the digital switches in the network. (*Id.*)

Ameritech Indiana contended that since the vendors know how many of each kind of line they will have to provide, they can set and calibrate the prices for each type of line accordingly so that the total revenues derived from the growth and replacement lines together recover the total costs of providing the lines. Thus, the replacement and new line prices are tied directly to growth line price, and more specifically, to the number of each kind of line the vendor will be required (in the case of replacement and new lines) and will be able (in the case of growth lines) to provide. But adding additional line quantities to SICAT – as Dr. Ankum does by including replacement lines placed under prior contracts and at different prices – distorts the actual forward-looking price contemplated by the vendors and SBC under the current contracts. (Currie Reply at 33) This is because Dr. Ankum's approach expects the vendors to charge the lowest price on a vastly higher percentage of lines than contemplated by the contracts. (*Id.*) Dr. Currie explained that by using the lowest prices for all non-growth lines, Dr. Ankum's approach drives down the average price per line significantly and would result in vendors not recovering their total costs. (*Id.*)

Dr. Currie also noted that Dr. Ankum's analysis is methodologically outdated – it is premised on the old bifurcated price structure that used to govern Ameritech's switch purchases. Under the old contracts, the vendors priced replacement lines and growth lines only; they did not separately price new lines. In his testimony in this proceeding, Dr. Ankum fails to explicitly discuss or account for the prices for new lines – for those lines on brand new switches that are not replacing any existing switch. (Currie

Reply at 40) Instead, Dr. Currie explained, Dr. Ankum simply applies the lowest price between new and replacement lines to the replacement line counts; when the replacement line price is lower, Dr. Ankum uses that price as the price to be applied to the replacement line counts, and when the new line price is lower, Dr. Ankum uses that price to be applied to the replacement line counts, even though the contracts expressly confine that price only to new line purchases. (Currie Reply at 40-41; Tr. at AA-399-403 Ankum Cross)

3. SICAT as a TELRIC Model. Dr. Currie also addressed Dr. Ankum's claim that SICAT is not a TELRIC study because it fails to account for all lines. Dr. Currie acknowledged that SICAT is not a TELRIC study. Instead, Dr. Currie explained, SICAT simply calculates unit investments that are then applied to the entire network in a TELRIC cost study. (Currie Reply at 43) SICAT simply calculates the average forward-looking price per line of switching equipment based on the contracts SBC has with its vendors. (*Id.*) After SICAT determines this price, the price is used in cost models that include all the lines in the network as if, consistent with TELRIC, SBC were rebuilding its entire network from scratch. (*Id.*) Dr. Currie explained that Dr. Ankum conflates these two steps. Dr. Ankum pollutes the first step – the calculation of the average forward-looking price per line – with the second step – the determination of a TELRIC price – by including embedded network data in the first step. (*Id.* at 41) Dr. Ankum improperly assumes that all lines in the network that are not covered by the existing DND contracts were installed at the lowest line price as part of the first stage of the calculation. (*Id.* at 42)⁴⁶

4. Switch Technology Mix. Ameritech Indiana explained that the switch technology mix assumed in its SICAT model is based on the current line mix across switch vendors in Indiana. Dr. Currie explained that the current mix is the best estimate of the forward-looking line mix. (Currie Reply at 52)

Ameritech Indiana argued that its current line mix reflects the fact that the decision to purchase switches from any given vendor is based on a variety of factors, not just the cost of the switches. This is why Ameritech does not buy 100% of its switches from the vendor with the cheapest “up-front” switch price. Rather, Ameritech Indiana explained that when deciding from whom to purchase a switch, it must also consider things such as power requirements, floor space requirements, feature availability, feature cost, HVAC requirements, equipment availability, contract terms, maintenance costs, future switch growth costs, technician training requirements, OSS compatibility, installation quality, and the revenue potential of the switch. (Jarmon Reply at 3) Ameritech Indiana argued that the CLECs fail to account

⁴⁶ Ameritech also asserted that, in addition to his inappropriate adjustments to SICAT, Dr. Ankum's ULS proposals suffer from additional flaws. First, Dr. Ankum ignores Ameritech's cost support for the category of “Other Expenses” (*see* AT&T/WCom/McLeod Ex. 4C (Ankum Rebuttal) at 14) and erroneously claims that those expenses are significantly higher than those found in other Ameritech states. As Dr. Currie testified, the “Other Expenses” in the most comparable compliance cost study were slightly higher than those proposed here. (Currie Reply at 10) Second, Dr. Ankum erroneously presumes that the feature investment value found in SICAT is a complete replacement for the feature investment found in the Ameritech POTS port Compliance Study that he relies on. It is not. (*Id.*) Accordingly, Dr. Ankum understates Ameritech's feature investment for an unbundled basic port. (*Id.*)

for these other factors that influence the mix of switches in the network, and therefore, the Commission should reject the CLECs' position that Ameritech's switch technology mix does not reflect a least-cost network because the percentage of Lucent switches – the most expensive switches – is too high.

Ameritech Indiana next noted that Dr. Ankum's proposed mix simply swaps the percentages of Lucent and Siemens switches, without providing any reasoning or analysis justifying the percentages. Indeed, Dr. Ankum acknowledged that his proposed mix is not the result of any calculation but results only from what he feels TELRIC requires. (Tr. at AA-417-18 Ankum Cross) Moreover, Ameritech Indiana noted that the mix proposed by Dr. Ankum is fundamentally at odds with the expectations that Lucent and Siemens could have reasonably entertained while negotiating the DND contracts. As Dr. Currie explained, the actual contract prices would likely be substantially different for both Lucent and Siemens.

E. Findings. We agree with Ameritech Indiana that a primary issue in this subdocket is whether it incurs usage-sensitive costs for local switching, and whether it may recover those costs via a usage-sensitive rate element in its ULS-ST offerings, based on minutes of use. We were presented with numerous arguments about what is, and is not, contained in the current SBC DND contracts and whether older Ameritech-specific contracts should or could be used, instead. We were also presented with many theoretical arguments about whether or not Ameritech incurs usage costs, and even whether the vendors, themselves, incur usage costs. Dr. Currie presented evidence that Ameritech may, in fact, have incurred usage costs (so-called "CCS jobs") in the past and estimates of then-future CCS jobs and costs. He was much less clear about several critical, related issues. First of all, while Dr. Currie provided an estimate of projected CCS job amounts for Indiana for the year 2001 to support Ameritech's argument that there should be a usage-based switching element associated with ULS-ST, he has not updated this amount, so we do not know the precise amount he is using to illustrate the Company's position. Furthermore, we cannot determine whether, how, and when the switch vendors recovered, or would recover, those additional costs from Ameritech. In other words, it is impossible to determine from the evidence presented by both sides whether the [Confidential \$] in CCS job amounts were included in the original purchase price of the switch, or were specifically covered under the contract terms at all. Most importantly, we could not determine whether Ameritech was (will be) actually required to pay an "extra" or additional rate or charge to the vendors, over and above the original purchase price or any other prices contemplated in the contract(s).⁴⁷ Ameritech did not provide sufficient testimony or data directly linking the [Confidential \$] in CCS job costs that Dr. Currie reported in his reply testimony with the actual rate it proposed to recover [Confidential \$].

Ameritech Indiana's assertion that without a usage-sensitive rate element for ULS it will be unable to recover its usage-related switching costs and will be forced to subsidize the switch usage of the CLECs and their customers is misleading, at best. Ameritech Indiana's claim that "the CLECs' customers, in general, are business and institutional customers who use the switch much more during

⁴⁷ Currie Reply [Confidential] at 16-17.

peak times than do residential customers, who are primarily the customers of Ameritech Indiana” may be true; however it does not come close to telling the whole story of who uses its switches and in what proportions. First of all, UNE rates do not distinguish between business and residential users. Ameritech proposed a single usage-sensitive rate for the local switching component of the ULS-ST offering; it did not propose two separate rates for business and residential customers; therefore, we do not understand the need to treat the costs of serving these two customer classes differently. This would be enough to render Ameritech’s arguments meritless. However, those arguments rest on some critical assumptions that must be addressed. Putting aside the very difficult jurisdictional separations questions associated with determining costs for UNEs, Ameritech’s comparison between CLEC and ILEC (in this case, Ameritech Indiana) retail customers is misplaced. This proceeding is not designed to determine costs or prices for the provision of retail services, whether by Ameritech Indiana to its own retail customers, or by CLECs to their retail customers. It is also not designed to compare usage of Ameritech’s switches between customer classes or between carriers, or to allocate switching costs based upon that comparison. Even if this proceeding were designed to accomplish either of those objectives (which it is not), the level of detail in Ameritech’s evidence is not remotely sufficient to allow us to resolve those issues. Ameritech has assumed numerous facts not in evidence; we need not, and we will not, base our decision on the rate structure or rate levels for the ULS-ST offering on Ameritech’s highly speculative arguments about the relative usage of Ameritech’s switches, cost causation and allocation, and subsidization.

Even without the many defects in Ameritech’s arguments, we would still agree with Dr. Ankum that the charge for switching for the ULS-ST offering should be implemented on a flat-rate basis. A flat rate switching charge is consistent with retail markets in Indiana. In a climate where flat rate local service is important for many customers, allowing Ameritech to collect usage costs from its CLEC competitor-customers would place CLECs at a disadvantage. In many cases, they would be forced to charge their own retail customers on a usage sensitive basis in order to recover usage sensitive costs imposed by Ameritech, while Ameritech’s own local retail customers do not pay a separate local switching rate. This could have profound consequences on the ability of Indiana consumers to take part in a competitive marketplace.

The burden is on Ameritech in this proceeding to support the inclusion of a usage-sensitive rate element in the rate structure for ULS-ST. For the reasons discussed in the previous paragraphs, Ameritech has not met that burden. Accordingly, we find that Ameritech’s request to assess a usage-sensitive switching charge for ULS-ST should be denied and that the switching costs (including usage costs, if any) for the ULS-ST offering should be recovered from CLECs on a flat-rate basis.

Next, we turn to what that flat-rate charge should be. As with our resolution of Non-Recurring Costs above, we are again confronted with the peculiar position of Ameritech that our Orders in this Cause did not require the filing of cost studies upon which to base the charge for unbundled ports. To revisit that specific language again, we instructed the parties on August 29, 2001 that this Cause would address “the rate for unbundled local switching (ULS), including the port and usage **costs**, if

any...[emphasis added].” This directive in our August 29th Order was in response to a Motion for Clarification of AT&T/WorldCom which requested that this Commission recognize that Ameritech’s new switch vendor contracts and the new ULS-ST cost studies impact both the line port charge and the switch investment costs, and as such both types of costs should be addressed in this Cause. We agreed and so ordered that both the port and usage costs, if any, would be addressed. In response, Ameritech filed no cost studies in support of its port charge. As Dr. Currie indicated on cross-examination, we are “not going to find something that isn’t there.” (Tr. 114, l. 2-8)

Indeed, Ameritech only filed one cost study in this phase of the proceeding dealing with unbundled local switching-shared transport (“ULS-ST”). (Tr. 114, l. 14-15) We find this curious, especially since pleadings filed by the Company earlier in this proceeding indicated that it would file “20 to 25 cost studies.”⁴⁸ As we indicated with NRCs above, we will not allow Ameritech’s failure to submit cost data to hinder our review of this issue. Our direction to file cost studies was clear. Ameritech had the option to either file cost studies or not. It did not. Similarly, if Ameritech found our Order to be ambiguous in any way, it could have asked for clarification. It did not. We can only surmise that Ameritech has chosen to forego that opportunity and the opportunity to file cost studies. Therefore, we will proceed to decide this issue on the evidence before us. In so doing, we will fully consider Ameritech’s position that the existing rate for unbundled ports should remain in effect.

In considering Ameritech’s proposal to retain the current unbundled port charge of \$5.34 per month, we must note the criticisms of that charge raised by Dr. Ankum. Particularly, the rate Ameritech proposes to retain in 2002 is based on switching contracts that are now two generations old. We cannot accept data this stale as a reliable basis for establishing costs, especially when much newer data are available. That concern is accentuated here, where we are charged with setting costs based on a forward-looking TELRIC methodology. We are aware that the Company itself does not operate under these old contracts, nor will it in the future. We similarly reject the assessment of the current port charge, which is the product of a cost model that has since been twice replaced by Ameritech. Again, by its own demonstration, Ameritech would not proceed to build or determine the cost of its network by utilizing the SCIS model today. Thus, the assessment of the \$5.34 port charge is not appropriate or reasonable.

Also, we cannot ignore the fact that \$5.34 rate was set at a time when it corresponded with the rates of other Ameritech states, nor that subsequent rate reviews have produced substantial reductions in these jurisdictions. While rate comparisons are not dispositive here, they are instructive in illustrating trends for common elements across similar or sister jurisdictions. As we observe SBC/Ameritech itself currently proposing to cut port charges by half or more in several of its other operating states, it strains credibility to accept the reliability of its comparatively high, six-year-old rate here.

For all these reasons, and based upon a thorough consideration of evidence put forward by

⁴⁸ Ameritech Indiana’s Suggested Process and Schedule, Cause No. 40611-S1, filed July 16, 2001.

Ameritech, we reject its proposal to assess the \$5.34 rate for unbundled ports.

Next, we turn to the position put forth by various CLECs in this proceeding. Dr. Ford, on behalf of ZTEL, indicated that the “TELRIC Compliant Upper Limit” for End Office Switching in Indiana is \$4.21 (Ford Reply, Attachment: Z-TEL Public Policy Paper No. 2, Table 2) but that “Cost-based switching rates in Indiana should be about \$4.17.” (Ford Reply at 10) He calculated this \$4.17 figure by multiplying \$4.04 by 1.03 (According to Dr. Ford, the average monthly rate for end-office switching in Texas is \$4.04, while switching costs are three percent higher). We note several things about these figures. First, the \$4.21 figure (and, presumably, the \$4.17 recommended rate) includes both a port charge and a usage component, measured by multiplying average End Office Switching minutes by an average local switching rate. We also note that Dr. Ford’s data are state-specific, rather than company-specific. Thus, his comparisons between switching rates in Texas and Indiana take into account companies other than just SWBT-Texas and Ameritech Indiana. All things being equal, we would assume that Ameritech Indiana’s switching costs would be lower than the statewide average. For example, we have previously set smaller wholesale discounts for GTE than for Ameritech Indiana because we assumed that GTE’s costs for its Indiana operations were lower than Ameritech Indiana’s corresponding costs.⁴⁹ Thus, using the data that Dr. Ford reported, we would expect a reasonable monthly recurring charge for unbundled local switching (including both the port charge and recovery of usage costs, if any) for Ameritech Indiana to be *less than* the \$4.17, which also appears to be a statewide figure. Finally, as we have noted elsewhere, comparisons of rates between states cannot tell us what a particular rate or charge should be for Ameritech Indiana. However, knowledge of rates and charges in other states can help us to establish a zone of reasonableness for those rates and charges.

On behalf of AT&T, WorldCom, and McLeod, Dr. Ankum recommends the adoption of a flat rate monthly charge for unbundled switching of \$2.75, which does not include any usage component. Dr. Ankum’s proposal takes Ameritech’s new cost model (“SICAT”), adjusts for certain alleged errors in the model’s assumptions, adds various other cost components and marks up the cost for shared and common costs to arrive at \$2.75.

Based upon our review of the evidence and our discussion below, we find that a monthly recurring charge for unbundled local switching must fall somewhere between the \$2.75 that Dr. Ankum proposed and \$4.00 (Dr. Ford’s proposed rate of \$4.17, adjusted to exclude the impact of switching costs for companies other than Ameritech Indiana). As discussed elsewhere, we are ordering Dr. Ankum to rerun his cost study(ies) or calculations with several changes to his assumptions. This will likely lead to a monthly recurring charge that is higher than his recommended \$2.75 figure.

5. Unbundled Local Switching—Shared Transport

A. Ameritech Indiana. Dr. Currie presented Ameritech’s recommendation for Unbundled

⁴⁹See Cause No. 41117.

Local Switching-Shared Transport (“ULS-ST”) rates as follows:

ULS usage	****
ULS-ST Blended Transport Usage	****
ULS-ST Common Transport Usage	****
ULS-ST Tandem Switching Usage	****
ULS-ST Reciprocal Compensation	****
ULS-ST SS7 Signaling Transport	****

(Currie Direct, Ex. KAC-1R)

This recommendation was tied to the testimony and supporting studies of Dr. Currie, who developed the TELRIC of ULS-ST. This analysis was based on commercially available, state-of-the-art technology that Ameritech deploys or plans to deploy in Indiana. (Currie Direct at 5-6) The primary model used in developing these costs was the Network Usage Cost Analysis Tool (“NUCAT”), which determined the per minute of use costs of numerous network functions and services. (*Id.* at 6)

Dr. Currie utilized four additional models in his analysis: (1) the Capital Cost System (CAPCS) for annual charge factors; (2) the Switching Information Cost Analysis Tool (SICAT) for switch investment; (3) the Signaling Cost Tool (SigCost) for calculation of SS7 investment; and (4) the SBC Program for Interoffice and Circuit Equipment model (SPICE) for interoffice and circuit equipment investments. (Currie Direct at 7-8)

Dr. Currie’s analysis also calculated the cost of money, economic lives and utilization/fill factors related to ULS-ST. (Currie Direct at 8)

B. OUCC. Ralph W. Sorrell, Principal Utility Analyst in the Telecommunications Division of the Indiana Office of Utility Consumer Counselor (“OUCC”), testified on behalf of the Public. He opposed Ameritech’s proposed use of different annual cost factors (“ACFs”) in this sub-docket (Cause No. 40611-S1) than those established by the Commission in the main docket of this proceeding (Cause No. 40611). He explained that ACF values are inputs to the total element long run incremental cost (“TELRIC”) model used to calculate monthly recurring charges. The ACFs at issue in this proceeding include cost of capital, economic life, and forward-looking fill factors. (See Commission Order in Cause No. 40611 dated June 30, 1998, as subsequently reaffirmed in Orders dated January 26 and August 16, 2000.) (Sorrell Direct at 2)

Mr. Sorrell testified that the Commission’s June 30, 1998 Order established ACF inputs to be used in developing the TELRIC of unbundled network elements (“UNEs”) under Section 251(c) of the Telecommunications Act of 1996 (“TA-96”). Mr. Sorrell testified that Ameritech should be required to continue using the same ACF inputs established in the main docket of this proceeding to set prices for

any UNEs that were not previously finalized and, thus, were carried over into this sub-docket. On page 47 of the June 30, 1998 Order in the main docket of Cause No. 40611, the Indiana Utility Regulatory Commission (“IURC”) ordered Ameritech “to rerun its cost studies ... utilizing (i) the fill factor assumptions contained in Ameritech’s Cost Analysis Resource manual, (ii) the 9.74 percent cost of capital ... and (iii) the longest depreciation lives proposed by Ameritech Indiana for its plant and equipment.” (Sorrell Direct at 2-3)

Mr. Sorrell argued that, since this Commission already established cost of capital, economic depreciation lives and fill factors for Ameritech’s UNEs in the main docket of this proceeding, Ameritech’s attempt to revisit those values in this sub-docket results in inefficient and repetitive litigation beyond the intended scope of this sub-docket. This Commission has said that it is “committed to issuing orders that encourage the development of local exchange competition in Indiana.” This Commission has also stated that it is “very concerned” about the length of time that Cause No. 40611 has been open without all pertinent issues being resolved. (*See* p. 2 of January 18, 2001 Order in Cause No. 40611) Mr. Sorrell testified that attempting to revisit the calculation of ACFs in this sub-docket would result in piecemeal rate making, with inconsistent ACFs being used to establish UNE rates for different types of UNEs that Ameritech is required to provide under Section 251(c) of TA-96. Therefore, Mr. Sorrell requested that Ameritech be required to recalculate its proposed charges using the ACFs previously established by this Commission as inputs for the TELRIC models. (Sorrell Direct at 3)

Mr. Sorrell testified that the use of ACF values different from those previously established by the Commission would impact Ameritech’s proposed monthly recurring charges (“MRCs”) for collocation, interconnection and UNEs. The ACF values Ameritech attempted to use in this sub-docket were introduced by its witness Kent Currie. (*See* Confidential Exhibit KAC-7) Mr. Sorrell explained that Dr. Currie used Ameritech’s new proposed cost of capital, fill factor, and economic depreciation life values in the cost model to convert Ameritech’s total investment in facilities that are used to provide UNEs into annual or monthly costs. (Sorrell Direct at 3-4)

In its June 30, 1998 Order in the main docket of this proceeding, the Commission found that “Ameritech Indiana currently faces no competition in this line of business [the provision of UNEs], making such investments virtually risk free.” (June 30, 1998 Order in Cause No. 40611, at p. 7, “Inputs to the Cost Studies”) As Mr. Sorrell noted, the Commission reiterated that point in its August, 2001 Regulatory Flexibility Report, when it stated “incumbent market dominance remains an indisputable fact in Indiana.” (*See* August 2001 Regulatory Flexibility Report at 8) Mr. Sorrell also pointed out that the Commission’s Regulatory Flexibility Report linked the current disappointing level of competition in the provision of local exchange telecommunication services in Indiana to continued uncertainty regarding TELRIC-based rates for UNEs that are essential to the development of competition in this state. (*See* August 2001 Regulatory Flexibility Report at 4) Mr. Sorrell stated that fair and reasonable UNE rates must be established without further delay if local exchange competition is to develop successfully inside Ameritech Indiana’s service territory. (Sorrell Direct at 4)

Mr. Sorrell testified that various factors influence the ease with which competitors are able to enter new markets (e.g., the amount of capital required for market entry, existing and anticipated economies of scale, switching costs, and brand value). Mr. Sorrell testified that, the easier it is for competitors to break into new markets, the more likely they are to do so. If the Commission does not set reasonable and fair wholesale rates in Indiana, the state's UNE rates will discourage competitive entry. Mr. Sorrell pointed out that, without comparable and competitive alternate service provider options, Indiana consumers will never realize the benefits of a competitive local exchange market that Congress envisioned when it adopted TA-96.

Mr. Sorrell cautioned that, since Ameritech faces no threat of competitive entry in the wholesale provision of UNEs in its incumbent local exchange carrier ("ILEC") service territory, any further delay in this proceeding would only serve to protect Ameritech's continuing market dominance at both the retail and wholesale levels. Mr. Sorrell urged the Commission not to revisit ACF values that were already approved in the main docket of this proceeding, since that would unnecessarily and inappropriately delay the setting of collocation and other UNE rates to be addressed in later Phases of this sub-docket, further delaying the development of a competitive market for local exchange telecommunications services in Ameritech's ILEC service territory.

Mr. Sorrell also testified that, if the Commission were to permit Ameritech to use different ACF values in this sub-docket than those previously established by the Commission in the main docket of this proceeding, it would thwart CLEC business planning efforts by injecting uncertainty and unpredictability into the UNE rate setting process. It would also constitute a piece-meal approach to rate making – an approach this Commission has repeatedly rejected in traditional rate cases. To the extent that Ameritech's proposed changes in ACF values would increase the resulting UNE rates, it would be unfair to competitors not to reevaluate and, if indicated, to revise other cost model inputs carried over from the main docket. Mr. Sorrell testified that if, during the pendency of a single UNE rate proceeding, the Commission permits Ameritech to make mid-stream, piece-meal changes to ACF values, resulting in higher and less predictable UNE rates, that could discourage otherwise qualified and interested UNE-based CLECs from entering and competing in Indiana's local exchange telecommunications service market.

Mr. Sorrell testified that the Commission should establish rates for all services that Ameritech is required to provide under 251(c) of TA-96 in this proceeding. By using the same inputs in this sub-docket as the IURC previously ordered in the main docket, the IURC would reduce litigation costs and delays – both of which constitute potential barriers to market entry.

Mr. Sorrell testified that Ameritech failed to present persuasive evidence or argument to justify changing ACF values in mid-stream. Mr. Sorrell also criticized Ameritech's claim that the ACF values it proposed using in this sub-docket were more current than the cost estimates the Commission established in the main docket. Mr. Sorrell testified that the information Ameritech relied on in setting its proposed cost of capital was stale. The proxy group Ameritech used failed to give any weight to recent, significant mergers in the telecommunications industry (e.g., the SBC/Ameritech and Bell

Atlantic/GTE mergers); and the data Ameritech used to project its capital structure for 2002 through 2004 was taken from a Value Line Investment Survey dated April 9, 1999. (Sorrell Direct at 12)

Mr. Sorrell also criticized the hypothetical capital structure Ameritech used to compute its proposed weighted cost of capital as too rich in equity. (*See* Exhibit KAC-7) Up to a certain percentage of total capital, long-term debt is generally a less expensive method of financing utility plant than common equity. Therefore, a capital structure comprised of a mixture of long-term debt and common equity usually produces a lower weighted average cost of capital than a capital structure comprised entirely of common equity. Ameritech's proposed hypothetical capital structure ignored the availability of low-cost debt financing. Mr. Sorrell testified that a more heavily leveraged capital structure should be assumed when computing TELRIC rates. (Sorrell Direct at 12)

In Mr. Sorrell's opinion, if the Commission decides to permit Ameritech Indiana to use a different cost of capital in this sub-docket than the Commission ordered in the main docket of this proceeding, the capital structure used in that computation should include at least 40% debt, allowing Ameritech to achieve a lower weighted cost of capital than it proposed in this sub-docket, further reducing proposed UNE rates under any cost model the Commission might ultimately approve.

Mr. Sorrell also noted that Ameritech relied on the Order in consolidated Cause Nos. 40785-S1, 40849, and 41058 ("OI-2000") to support its use of a different cost model in this sub-docket. However, Mr. Sorrell reminded the Commission that the OI-2000 case was settled, not litigated, that the Settlement Agreement was non-precedential and, by its very terms, was not to be offered into evidence or relied on in argument by any of the settling parties in any other proceeding, except as needed to enforce the terms of the Agreement. Mr. Sorrell noted that if the Commission decided to consider language in the Settlement Agreement or in the Commission's Order approving the settlement reached in OI-2000, that the Commission would recall that it did not expressly approve the cost studies Ameritech used in that case. (*See* discussion on p. 32 of the March 19, 2001, Order [in OI-2000] and on p. 14 of the May 24, 2001, Order on Petition for Reconsideration.) (Sorrell Direct at 11-12)

C. Intelenet Commission. The Intelenet Commission witness, Mr. Jerry Sullivan, testified that the Intelenet Commission views the resolution of the pricing issues in to be extremely important to its constituency and the future of competitive telecommunications entry in Indiana. He stated that the Intelenet Commission believes it is essential for potential competitors to have access to the interconnection services being investigated in this docket; and urged a swift determination of these pricing matters. Pointing to Ameritech witness Silver's testimony at page 8, Mr. Sullivan also testified that the purpose of this case is to determine ULS-ST costs, not establish terms & conditions that would apply, if a competitor purchases ULS-ST. The Intelenet Commission expressed the concern that an attempt to establish policy in this cost investigation could discourage some competitors from purchasing ULS-ST. Thus, according to Mr. Sullivan, it might delay competitive entry by CLECs and/or result in inefficient use of service or facilities by CLECs.

D. AT&T/WorldCom/McLeod. Dr. Ankum testified and proposed alternative rates based on his analysis of and adjustments to Dr. Currie’s recommendation. For comparison purposes, the two proposals are displayed side-by-side below.

<u>Element</u>	<u>CLEC</u>	<u>AIT</u>
ULS Switch Usage per MOU	NA ⁵⁰	**
ULS-ST SS7 Signaling Transport per msg	**	**
ULS-ST Blended Transport Usage per MOU	**	**
ULS-ST Common Transport per MOU	**	**
ULS-ST Tandem Switching per MOU	**	**

(cf. Ankum Rebuttal at 73)

Thus, Ameritech proposes rates that are from two to twenty times greater than those proposed by Dr. Ankum on behalf of the CLECs. The difference stems from six main factors, according to Dr. Ankum.

First, since SICAT calculates the switch investments used in NUCAT, any flaws identified in the way in which Ameritech calculates the port charge also affect the ULS study. (cf. Ankum Rebuttal at 62-63.) Second, Ameritech’s proposed Digital Switch Annual Cost Factor (“ACF”) (which converts switch investment into recurring costs) of **[Confidential \$]** is higher than what the Company proposed a few months ago in Illinois. (cf. Ankum Rebuttal at 64-65). Third, Ameritech’s proposed SS7 rate of more than **[Confidential \$]** also differs significantly from that proposed by the CLECs. As Dr. Ankum also notes, the number proposed by Ameritech is more than **[Confidential \$]** than the **[Confidential \$]** proposed by Ameritech itself recently in Illinois. (cf. Ankum Rebuttal at 65-66) Fourth, Ameritech and the CLECs also disagree on whether, and to what extent, Ameritech’s billing inquiry expenses should be based on Ameritech’s own end user inquiries. According to Dr. Ankum, Ameritech’s billing inquiry study relies on “millions” of its end user inquiries and does not take into account CLECs’ fielding questions from end-users themselves (cf. Ankum Rebuttal at 66-69) Fifth, Ameritech’s proposed Blended and Common transport rates also differ significantly from those proposed by the CLECs. (According to Dr. Ankum, the proposed Blended and Common transport rates in Indiana are 4.7 and 6.2 times as high as those just recently proposed by Ameritech in Illinois.) Dr. Ankum claims this is because the facility termination investments, which are the main cost driver for these rates, are also significantly higher. (cf. Ankum Rebuttal at 69-70). Sixth, as part of the ULS-ST tariff, Ameritech also charges for a cost item called Daily Usage Feed (“DUF”), which records the type of calls that a particular customer makes and various characteristics of those calls (e.g., local vs. long-distance, time of day, customer class, etc.) This information is critical to ensuring that CLECs can bill their customers correctly. Dr. Ankum claims that, “Given that switch vendors do not appear to charge Ameritech separately for the investment necessary for this measurement capacity, there is likely a double count for

⁵⁰ Already calculated and included in Port Charge.

this cost.” Additionally, Ameritech’s DUF charge is based on 1995 data. Dr. Ankum claims that call volumes have more than doubled since 1995, and that updated usage data alone would reduce this charge by more than 50%. (cf. Ankum Rebuttal at 70-72)

E. Ameritech Reply. In response, Ameritech Indiana argued that the inputs it used to determine ULS-ST costs are appropriate. They focus on the type of lines, SICAT as a TELRIC Model, fill factors, switch technology mix, Line-to-Trunk Ratio, Annual Charge Factors, Bill Inquiry Expenses, and Daily Usage Fees (“DUF”). We have previously summarized Ameritech’s position on the type of lines, SICAT as a TELRIC model, and the switch technology mix. In this section, we will summarize Ameritech’s position on the remaining items.

1. Fill Factors. Ameritech Indiana argued that its proposed switching fill factors are consistent with ¶ 682 of the *First Report and Order*, “reasonably accurate” forward looking projections of actual future usage. Ameritech Indiana explained that its proposed fill factors are the current average fill levels observed across SBC’s entire network. Ameritech Indiana argued that these current average fill factors are appropriate in a forward-looking cost study because, as Dr. Currie testified, they are reasonably accurate projections of what the actual fill factors will be in the future. (Currie Reply at 50) This is because the current average fill levels have been stable over recent years and will tend to remain so in the future. For example, Dr. Currie noted that the fill factor for analog line terminations has been virtually constant over the past few years. (*Id.* at 50) Moreover, the current average fill levels are easily measured – SBC’s network organization regularly monitors and measures actual network utilization. For example, the Ameritech Capacity Investment Management Switching (“ACIMS”) system – a system used to monitor and manage switching capacity and report system data – was used to gather the data for Ameritech Indiana’s line side fill factors. (*Id.*) Dr. Currie further explained that the other switching fills proposed by Ameritech Indiana were determined in a similar fashion, and are therefore reliable estimates of forward-looking fill levels. (*Id.* at 51)

Ameritech Indiana explained that its proposed fill factors do not represent the actual current usage of its actual, existing network. Rather, its fill factors represent the actual current usage experienced by the current components of the network (*i.e.*, the digital switches) as they would be redeployed and reconfigured in the forward-looking network required by TELRIC. Even though Ameritech Indiana’s cost model is premised on a remodeled network (the TELRIC-mandated, least-cost, forward-looking network), that reconfigured network will employ the same digital switch technologies that Ameritech Indiana uses today in its existing network for each of the four switching technologies. That is why the current average fill levels observed in the network today are reasonable projections of actual usage in the future.

Ameritech Indiana next explained that while its proposed fill factor for digital lines is relatively low compared to its other fills, the low fill factor results from the fact that much of the capacity of each DS-1 digital line cannot be used to generate revenue. Ameritech Indiana explained that each DS-1 digital line contains 24 individual DS-0 channels, but that, on average, not all 24 channels can be used to

generate revenue. Moreover, some of the capacity of the DS-1 cannot be used to generate revenue because the process of demultiplexing the DS-1 signal into the 24 DS-0 channels renders additional capacity unusable for service.

Finally, Ameritech Indiana rebutted the CLECs' argument that Ameritech's contracts with its switch vendors provide that the switches will be maintained at utilization levels near 100%. Ameritech Indiana noted that the only evidence the CLECs have submitted on this score is an attachment from an expired Lucent PIP contract (the PIP contracts preceded the current DND contracts). (See AT&T/WorldCom/McLeod Redirect Ex. 2) Ameritech Indiana argued that the attachment from the old Lucent PIP contract relied upon by the CLECs simply lists maximum fill levels. Ameritech Indiana asserted that, when read in its entirety, the expired Lucent PIP contract clearly states that the vendor will provide switches that "do not exceed" the utilization levels stated in Attachment 9 of the PIP contract. (Ameritech Ind. Cross Ex. 8) Ameritech Indiana argued these maximum fill levels are set because many states have call blocking standards over which a certain number of blocked calls on the switch are impermissible. In order to meet these standards, Ameritech Indiana makes sure that its switches do not exceed certain utilization levels so that there will be sufficient unused or spare capacity available to ameliorate call blocking during periods of high switch usage.

2. Line-to-Trunk Ratio. Ameritech Indiana explained that the CLECs' complaints about Ameritech Indiana's line-to-trunk ratio are irrelevant because Ameritech Indiana did not use a line-to-trunk ratio to develop forward-looking trunk quantities in SICAT (except for a specific line-to-trunk ratio stated in the contracts relating to replacement or new switches). (Currie Reply at 52) Ameritech Indiana explained that under its previous switch contract model – the ARPSM model – a line-to-trunk ratio was applied to project forward-looking trunk quantities, but that is no longer the case in SICAT. Rather, in SICAT, forward-looking trunk quantities are obtained simply by looking at how many trunks are contemplated by the contracts. Ameritech Indiana explained that the line-to-trunk ratio referred to by the CLECs is simply the ratio that *can be derived* by dividing the total number of lines provided in the contracts by the total number of trunks, but it is *not something that Ameritech derives independently* to project future trunk quantities from a given number of lines. (*Id.*)

Accordingly, Ameritech Indiana argued, the line-to-trunk ratio recently proposed by Ameritech Illinois (and cited by the CLECs here) in an Illinois proceeding is irrelevant here. For one thing, Ameritech Indiana noted that the cost study in that proceeding was based on the ARPSM model and the prior set of switch vendor contracts. Therefore, there was a need in Illinois to apply the line-to-trunk ratio to develop forward-looking trunk quantities. But that is not necessary here because the new DND contracts contemplate a given number of trunks will be provided over the term of the contracts. Moreover, Ameritech Indiana noted that the ARPSM model modeled only the five Ameritech states, while SICAT models all 13 SBC states. (Currie Reply at 53) Finally, Ameritech Indiana explained that a major part of its current switching expenditures is for trunks, given increases in usage of the network. (Currie Reply at 53) That is why there are more trunks per line under the DND contracts than was believed to be the case under the old PIP contracts.

3. Annual Charge Factors. Dr. Currie revised the ACF downward to correct an error, but suggests that recalculation of these cost factors is warranted in this case. (Currie Reply at 54-56)

Ameritech Indiana proposed that an updated annual charge factor (“ACF”) be used in this proceeding to set UNE rates for ULS-ST. (Currie Reply at 69) Even though the Commission established an ACF in the main 40611 docket to be used in setting UNE rates, Ameritech Indiana argued that it is proposing a new ACF in this proceeding because the ACF established in 40611 is based on a record that is at least four years old. Ameritech Indiana contended that it has provided extensive work papers and testimony justifying updated values of cost of capital, economic lives, and fill factors, the three key assumptions underlying the ACF approved in 40611. Ameritech Indiana argued that without reexamining the assumptions underlying the ACF, the cost studies submitted in this proceeding cannot claim to be forward-looking.

Dr. Currie explained that many factors have changed since the main 40611 docket that make it unreasonable to use the old ACF in new TELRIC studies. (Currie Reply at 55) For example, Ameritech Indiana noted that the ACF established in 40611 does not capture the impact of the SBC-Ameritech merger and increases in labor rates (the latter of which affects maintenance expenses, which in turn are captured in the ACF). (*Id.*) As to cost of capital, Ameritech Indiana argued that the information used to support its current cost of capital is more recent than the comparable information underlying the cost of capital established in 40611. (*Id.* at 56) Ameritech Indiana explained that the debt ratio used in its current cost of capital is based on the market value capital structure of a comparable group of LECs followed by Standard & Poor’s. (*Id.* at 57) Ameritech Indiana asserted that it used the market value capital structure of this sample group because its own equity is held by SBC and therefore does not have an observable market value. (*Id.*) Dr. Currie further explained that it did not use the market value capital structure of SBC itself – a structure that has a lower debt ratio than the debt ratio observed in the sample group – because the average capital structure for a group is less affected by the observation errors or temporary distortions that may affect one company. (*Id.* at 57-58)

As to economic lives, Dr. Currie argued that most of the economic lives used in the current ULS-ST cost study are the same or longer than those decided in the main 40611 docket. (Currie Reply at 56)

Finally, as to fill factors, Ameritech Indiana argued that it did not present forward-looking fill factors in the main 40611 docket and that it has properly explained how the forward-looking fills presented in this proceeding are consistent with the FCC’s requirements regarding forward-looking fill factors.

4. SS7 Costs. Dr. Currie further stated that the SigCost model results cannot be fairly compared to the SS7 costs produced by models in other states. (Currie Reply at 58-59)

5. Bill Inquiry Expenses. Ameritech Indiana explained that its proposed MOU rate for ULS-ST switch usage includes recovery of bill inquiry expenses – *i.e.*, the costs caused by CLECs when they inquire about the bills they receive from Ameritech Indiana. (Currie Reply at 60) Ameritech Indiana explained that while the CLECs purchase a daily usage feed (“DUF”) from Ameritech Indiana in order to bill their own end-user customers, Ameritech Indiana still incurs expenses in billing *its* customers, in this case, the CLECs. Ameritech Indiana argued that the expenses it incurs in responding to usage billing inquiries by CLECs is an ordinary cost of business. (*Id.* at 61) Ameritech Indiana explained that the billing inquiry expenses included in the cost study do not include any expenses other than the time of its service representative responding to CLEC queries. (*Id.*) Ameritech Indiana further noted that the billing inquiry cost study uses conservative estimates of the bill inquiry expenses per message associated with ULS-ST usage. (*Id.*) In fact, as Dr. Currie explained, the bill inquiry expense per message for long-term shared transport is less than the bill inquiry expense per message for switched access (*i.e.*, from inquiries from large carriers like AT&T and WorldCom). (*Id.*) Therefore, Ameritech Indiana asserted, any further reduction of the volume-sensitive billing expenses used in the ULS-ST cost study would be unreasonable.

Ameritech Indiana also argued that the retail bill inquiry study upon which its billing inquiry charges are based in this proceeding is reasonably used as a proxy for the costs of handling CLEC inquiries. Ameritech Indiana argued that while the CLECs contend that there is no way they could generate the volume of inquiries that Ameritech Indiana receives from all its retail customers, this is irrelevant. Rather, Ameritech Indiana explained, the retail study only uses the absolute volume of bill inquiries to develop a cost per inquiry and the number of inquiries per message billed. Ameritech Indiana stated that the ULS-ST study merely assumes that the cost to handle a bill inquiry from a CLEC is similar to the cost of handling an inquiry from a retail customer.

6. Daily Usage Feed Costs. Finally, Dr. Currie stated that DUF costs were established in Cause No. 40611 and should not be revisited here. (Currie Reply at 63)

Ameritech Indiana explained that the daily usage feed (“DUF”) provides CLECs with data on a per call basis necessary for the CLECs to be able to bill their end users. Ameritech Indiana asserted that charges for DUF have already been established in the main 40611 docket based on the compliance cost study undertaken in that proceeding, and therefore, DUF charges are not at issue in this subdocket.

Ameritech Indiana also argued that if the Commission is nonetheless inclined to revisit DUF charges, the Commission should reject Dr. Ankum’s proposed adjustments. Ameritech Indiana explained that the vast majority of costs included as DUF costs in the compliance cost study are volume sensitive – that is, they depend on the number of message records processed and stored. (Currie Reply at 63) However, Ameritech Indiana explained that because DUF costs are derived by dividing the total costs by the total number of messages to develop the cost per message, it is critical to examine the new volume sensitive costs associated with new calling volumes. (*Id.* at 63-64) Ameritech Indiana asserted that while Dr. Ankum proposes updating the current DUF cost study to reflect the current

volume of messages on the network (because he believes the study understates the current volume of messages on the network), he does not also update current costs to reflect the increase in costs caused by the increase in messages. (*Id.* at 64) Ameritech Indiana argued that Dr. Ankum would have the Commission believe that the number of messages has more than doubled since the 1996 DUF study, but that costs have not changed at all.

7. Blended and Common Transport. As for blended and common transport rates, Dr. Currie suggests that these rates are higher in Indiana because new, more accurate models were used here. (Currie Reply at 62-63)

F. Findings. This is the one area of Phase I in this proceeding where Ameritech has provided us with a cost study. In making our findings, we will separate the assumptions, costs, prices associated with the ULS-ST offering into three groups: (1) those associated with Unbundled Local Switching; (2) those associated with the Long-Term Shared Transport component of the ULS-ST offering; and (3) miscellaneous assumptions, costs, and prices.

Assumptions, Costs, and Prices for the Unbundled Local Switching Component of the ULS-ST Offering

Type of lines (“new”, “replacement,” and “growth”); and SICAT as a TELRIC Model

The parties’ almost singular focus on the switch contracts and SICAT has shifted the debate from determining an appropriate switching price under the FCC’s TELRIC methodology to determining how much Ameritech pays, or will pay, to its switch vendors. While the latter determination may be an input into the former, they are by no means identical. Ameritech has described how it uses the contracts and the SICAT model to determine a weighted average per-line price that it pays its three vendors during the life of the contracts (Lucent, NorTel, and Siemens), as if there were only one vendor. The duration of the current SBC DND contracts (five years) and the impact that short life cycle has on this proceeding is critical. Ameritech does not replace all of its existing switches every year, nor does it install all of the new switches it will ever install (e.g., to serve new subdivisions, new office parks or buildings, etc.) in a single year. Thus, during the life of the three contracts, SBC/Ameritech will only install a relatively small number of new switches and replace a relatively small number of existing switches. Each of these switch types (new and replacement) will have a certain number of line ports associated with it to enable each switch to serve a given number of lines. There is a third category of lines, “growth” lines. In any given year, Ameritech assumes that the number of growth lines added will exceed the number of new and replacement lines added. There is agreement that growth lines are the most expensive category of lines, although the amount of the difference varies for each of the three vendors. The higher average unit price for the growth lines, when multiplied by the higher percentage level for growth lines, significantly increases the average unit (per-line) investment for switching.

According to Dr. Ankum, SICAT models the number of new and replacement lines added in the

five-state Ameritech region during the five-year life of the contracts but models the number of growth lines added in all 13 SBC states. (Ankum Rebuttal at 41, 42) Dr. Ankum asserts that the five-year time horizon used as an input to SICAT is also inappropriate; he argues that it would be more appropriate to consider the entire economic life of a given switch (12 to 18 years, under the FCC's depreciation rules) and the total number of lines that would be added at cutover. (Ankum Rebuttal at 44, 45)

SICAT is not a TELRIC Model. On this point, Ameritech and the CLECs agree. This is a critical point. SICAT models one very specialized type of short-run cost. SICAT is not used to calculate the TELRIC costs of unbundled local switching, nor is it used to calculate the final per-line price that a CLEC must pay for the ULS component of the ULS-ST offering. The "market price" for switching, based upon the five-year life of the vendor contracts or from SICAT models of those five-year contracts, is not the best predictor of the TELRIC of unbundled local switching. Over the long run, the majority of switches will be new or replacement switches, not existing switches. Therefore, over the long run, the majority of lines and trunks will be new or replacement lines, not growth lines.

All other things being equal, Ameritech's approach to calculating the per-line investment amounts will significantly, and inappropriately, increase the amount that Ameritech proposes to charge CLECs for the switching component of the ULS-ST offering. Dr. Ankum cites an order from the Michigan PSC that purports to require Ameritech to use an assumption of 30% growth lines, rather than 70% growth lines. (Ankum Rebuttal at 46) We agree that this assumption (30% growth lines) is appropriate, and we find that it should be used in calculating the monthly recurring line port charge.

Many of the disputes regarding the appropriate line port charge also affect the determination of the appropriate trunk port charge, as SICAT is the initial model used in setting both charges – e.g., the parties disagree over the proper proportion of "growth" trunk ports. We find that the assumption of 30% growth should also be applied in determining costs and prices for trunk ports.

We agree with Dr. Ankum that a TELRIC-based price should consider the total demand for switching over the economic life of the switches (12 – 18 years). In this case, total demand is defined as all lines in all 13 SBC states. (Ankum Reply at 44, 45)

Switching fill factors

We agree with OUCC witness Mr. Ralph Sorrell that switching fill factors should not be updated at this time.

Switch technology mix

SICAT assumes a particular technology mix from the three vendors: **[Confidential % - Lucent; % - NorTel, and % - Siemens]**. Dr. Ankum urges us to require Ameritech to reverse the Lucent and

Siemens percentages, because the Lucent switches are more expensive than the Siemens switches. Dr. Ankum's proposition, if accepted, would intrude too much into SBC/Ameritech's business practices. We are not comfortable ordering the Company to purchase (or not purchase) switches by particular vendors, even if it is merely for "cost study purposes." Hence, we find that Dr. Ankum should rerun his cost studies with the switch vendor mix advocated by Ameritech.

Line-to-Trunk Ratio

In summary, we find that Line-Trunk ratios are properly calculated on the basis of interoffice MOU, rather than on the number of lines. This assumption will directly affect both the number of trunk ports and the total trunk port investment that Ameritech seeks to recover. We find that Ameritech should use the Illinois line-to-trunk ratio of 6.25 for ULS-ST cost study purposes in this subdocket.

Costs, Prices, and Assumptions for the Long-Term Shared Transport Component of the ULS-ST Offering

Blended and Common Transport

Dr. Currie based his objections to Dr. Ankum's proposed rates for blended and common transport, in part, on Ameritech's proposal to update the fill factors to reflect "forward looking costs." As we discussed elsewhere, this would be inappropriate at this time. Dr. Currie also argued that, in the process of updating the SBC SPICE (SBC Program for Interoffice and Circuit Equipment) model, "it was discovered that the previous simpler model had significantly understated forward-looking investments." (Currie Reply at 62) There is insufficient information in Dr. Currie's Direct Testimony about the assumptions and constraints in the SPICE model for us to evaluate its use to develop costs in this phase of the instant subdocket – for example, there is no definition of "least cost paths" or information on the assumptions or constraints that govern how the model selects nodes, routes, or circuits; how it calculates costs; etc. (Currie Direct, Exhibit KAC-6) Therefore, we will accept Dr. Ankum's recommendations regarding the facility termination investments at this time; we will also accept his proposed rates for blended and common transport.

SS7 Transport

Ameritech is proposing to increase the SS7 transport rates in Indiana. Dr. Currie opposes Dr. Ankum's proposal to use the SS7 rates from Illinois and provides three reasons in support of Ameritech's request. First, SigCost was not used for developing SS7 investments in any other Ameritech state until its introduction in this proceeding. Second, SigCost uses forward-looking fills in Indiana, whereas other Ameritech states such as Illinois did not use them in developing SS7 investments. Finally, SigCost relies on SPICE for interoffice investments, which also has not previously been used in any Ameritech state. We have previously rejected Ameritech's request to modify its fill factors in this proceeding. We have also indicated that there is insufficient information in Dr. Currie's Direct

Testimony about the assumptions and constraints in the SPICE model for us to evaluate its use to develop costs in this phase of the instant subdocket. Accordingly, we reject Ameritech's SS7 charge of more than [Confidential \$] per message as excessive. In the absence of specific evidence to the contrary, we find that the rate element proposed by Ameritech in Illinois of [Confidential \$] (including mark-up), is appropriate.

Reciprocal Compensation

Dr. Currie identified TELRIC for ULS-ST Reciprocal Compensation of [Confidential \$] and a figure for "TELRIC with Shared and Common Costs" of [Confidential \$]. (Currie Reply, Exhibit KAC-1R) Dr. Ankum did not identify any alternative reciprocal compensation costs or propose any rates; furthermore, it appears that he did not discuss the issue in his testimony. We find that, in the absence of any alternative rates for reciprocal compensation, Dr. Currie's "TELRIC with Shared and Common Costs" figure for ULS-ST reciprocal compensation of [Confidential \$] should be approved as the applicable rate.

Tandem Switching

We find that Dr. Ankum's proposed rate of \$0.000513 for ULS-ST tandem switching is appropriate, given the lack of persuasive evidence to the contrary from Ameritech.

Costs, Prices, and Assumptions for Miscellaneous Items Associated with the ULS-ST Offering

Annual Charge Factors, Bill Inquiry Expenses, and Daily Usage Fees ("DUF")

Dr. Currie has provided insufficient evidence to persuade us that the Annual Charge Factors we set previously should be changed. Therefore, we find that the ACF should remain at [Confidential \$] as approved previously in Cause No. 40611.

Neither position is completely correct regarding billing inquiry and measurement expenses. We agree with Dr. Ankum that, "To the extent that Ameritech may be at fault in the billing disputes, it seems inappropriate that CLECs would have to pay for the inquiry." We also agree with Dr. Ankum that, "[T]o the extent that Ameritech will receive billing inquiries from CLECs where Ameritech is not at fault, some cost recovery seems in order." (Ankum Reply at 66, 67) We disagree with Dr. Ankum, however, in his proposal to recover the billing inquiry on a per-port, per-month basis (\$0.06). There is no logical relationship between the number of ports and the complexity of the billing inquiries, for example. A per-port, per-month charge also cannot account for repeat, or multiple inquiries per account or per telephone number. We find that, in those cases in which Ameritech is at fault in the billing inquiry dispute, it should not be able to charge the CLEC to correct the CLEC's bill. However, in those cases in which the CLEC is at fault, Ameritech should be able to charge the CLEC. In those

cases where no manual intervention is needed, the costs and rates or charges for billing inquiries and measurement will be developed later, when we address OSS costs and prices. However, where manual intervention is needed, Ameritech may charge the CLEC at its (Ameritech's) then-current labor rates. In no case, however, may Ameritech begin charging CLECs a billing inquiry charge until after the Commission has determined that the OSS test currently being conducted by KPMG Consulting and the Test CLEC is complete for Indiana. It is impossible to predict how many billing inquiries CLECs will make or how contentious the disputes will be. By waiting until after the OSS test is complete to permit Ameritech to charge for billing inquiries (where the CLEC is at fault), we hope to drastically limit the number of billing-related disputes between SBC/Ameritech and CLECs. However, there may still be some disputes of this nature. We strongly urge SBC/Ameritech to begin negotiating a dispute resolution process with interested CLECs to include in CLEC interconnection agreements, to the extent that the dispute resolution language already contained in SBC/Ameritech's current interconnection agreements is not adequate to allow for timely and complete resolution of these types of disputes. Finally, because we are rejecting Dr. Ankum's fixed charge for billing inquiries and measurement, this charge will need to be deducted from the port charge. We find that Dr. Ankum should rerun the cost study for the flat-rated switch and switching costs to deduct the \$0.06 per-port, per-month charge.

Finally, while we agree with Dr. Ankum that the DUF charge should be recalculated, we agree with Dr. Currie that any recalculation should include the underlying costs, and not just the message count. Accordingly, we find that the DUF charge should be recalculated using current call volumes (rather than 1995 call volumes) and current cost estimates. We do note that, according to a recent Hearing Examiner's Proposed Order from the Illinois Commerce Commission, the DUF charge is only calculated as a separate charge for NorTel switches, and not for Lucent or Siemens switches. We have no evidence in our record regarding this issue; regardless, the DUF charge should be recalculated by Ameritech Indiana, in the manner we have described, for all applicable switches. The recalculated DUF charge should be recovered through a monthly flat-rate charge (Illinois Commerce Commission – Hearing Examiner's Proposed Order at 17, 18, 22.).

Summary of Findings

Those changes to the SICAT assumptions and/or outputs that we have approved in this Order above must flowthrough to the ULS-ST model: assume 30% growth lines and trunks (and, hence, assume 30% "growth" line and trunk ports); consider total demand for all lines in all 13 states, over the entire economic life of the switches; use Ameritech's switch vendor mix for both line and trunk ports.

In conclusion, for all of the foregoing reasons, we find that certain of the ULS-ST rates and charges should be recalculated based upon these findings. The following rates and charges apply:

<u>Element</u>	<u>How Recovered</u>	<u>Charge</u>
ULS Switching _ Line Port Charge (Flat-Rate MRC)		

Line Port Trunk Charge	
MDF w/ Protector	
Telephone Number	
Intercept	
Directory	
Other Expenses	
DUF Charge	(TBD, based on current message count and current costs)

TOTAL:

Shared and Common Cost	(14.93%)
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Monthly POTS Port Cost	TBD
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ULS Switching – Usage	(No separate charge) ⁵¹	NA
ULS-ST SS7 Signaling Transport	(per message)	\$0.000202
ULS-ST Blended Transport Usage	(per MOU)	\$0.000823
ULS-ST Common Transport	(per MOU)	\$0.000513
ULS-ST Tandem Switching	(per MOU)	\$0.000295
ULS-ST Recip. Comp.	(per MOU)	\$0.000836
Billing Inquiry Charge		TBD*

*To be assessed only when the CLECs are at fault and only when manual intervention is required, and only after the 3rd party OSS test is complete for Indiana. (To the extent that electronic OSS are involved, the costs and prices will be developed concurrently with the development of the other OSS costs and prices, after the 3rd party OSS test is complete.)

Daily Usage File/Feed	(Per message)
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6. Conclusion. Ameritech argued in its Reply Brief that the Commission lacks the legal authority to order it to file a tariff or even make the rates we establish herein effective, and that we are required to implement such rates through individual interconnection agreements. We disagree. It is without dispute that the UNE combination rates we adopt here all further the goal expressed in Indiana law to advance competition. Thus, Indiana and other states clearly can advance regulatory rules and laws that affirmatively promote valid state aims, including promulgating pro-competitive regulatory approaches such as the new UNE combination rates' implementation mechanism.

As a result, we find that Ameritech is ordered to file within thirty days of the date of this Order, a ULS-ST tariff containing usage-based rates for blended transport (\$0.000823) and common

⁵¹ Already calculated and included in Port Charge.

transport (\$0.000513), SS7 Signaling Transport (\$0.000202), Reciprocal Compensation (\$0.000836), and Tandem Switching (\$0.000295). These rates should be effective on the date of this Order.

These rates and charges approved in this Order or in subsequent Orders in Cause No. 40611-S1 supercede any prior "TBD" or interim rates and charges for the UNE-P offerings and other combinations described in this Order that the Commission specifically identified should be replaced by the rates determined in this subdocket or in Cause No. 40611 or in other IURC proceedings.

IT IS THEREFORE ORDERED BY THE INDIANA UTILITY REGULATORY COMMISSION that:

1. The findings as set forth in this Order are hereby approved.
2. All reruns and recalculations provided for herein shall be filed with the Commission, including final costs and prices, within 15 days of the date of this Order.
3. Ameritech shall file a tariff within 30 days of the date of this Order containing all of the NRCs for UNE-P and EELS that we have required herein, all of the usage-based rates for the ULS-ST offering, and the flat-rate switching charge for ULS-ST. However, the rates approved herein shall be effective upon the issuance of this Order.
4. This Order shall be effective on and after the date of its approval.

McCARTY, HADLEY, RIPLEY, SWANSON-HULL, AND ZIEGNER CONCUR:
APPROVED:

I hereby certify that the above is a true and correct copy of the Order as approved.

Joseph M. Sutherland, Secretary to the Commission

